

CITY OF BIRMINGHAM

REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1937



BIRMINGHAM :

The Birmingham Printers, Ltd.,
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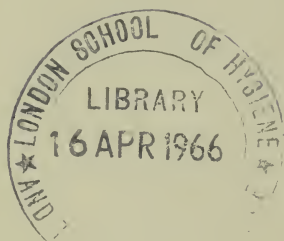


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PUBLIC HEALTH DEPARTMENT,
THE COUNCIL HOUSE,
BIRMINGHAM.

To THE CHAIRMAN AND MEMBERS,
PUBLIC HEALTH AND MATERNITY AND CHILD WELFARE
COMMITTEE

In submitting my report on the health of Birmingham during 1937 I would make preliminary comment on some of the outstanding circumstances of the year.

Two main standards of physical welfare are those of the general death-rate and of the infant mortality. The general death-rate rose slightly in 1937, largely owing to the prevalence of influenzal conditions in the spring. The infant mortality, on the other hand, fell to the lowest figure so far reached in the City, to a level attained only once before : in 1930.

One special rate, the subject of much public interest, is that of the maternal mortality. Here a substantial reduction is to be recorded, and it is particularly satisfactory to find that this is specially evident in relation to septic conditions in child-birth. Coupled with this there is a kindred satisfaction in noting that for the fourth year in succession since the low record of 1933 there has been a slight rise in the Birmingham birth-rate. That satisfaction is tempered, however, by the fact that the illegitimate birth-rate is higher than at any time during the past ten years; and the experience of Homes dealing with such cases suggests a close relation between this increase in illegitimacy and the more general use of contraceptives regarded as sure preventives of the results of licence.

No notable outbreak of infectious disease occurred during the year. Diphtheria continued to present a severe type; and while immunisation has progressed steadily, parents will need to show a greater eagerness to protect a considerably higher proportion of the child population before any obvious reduction in diphtheria incidence can be reported.

In the section dealing with tuberculosis will be found an analysis of the changes in incidence of the disease and in death due to it over the space of a decade, with the cheering conclusion of a 25 per cent reduction of the deaths and a 42 per cent reduction in the new cases due to tuberculosis.

In relation to housing, much work has been done during the year, both in the representation of houses in areas and individually, and in the remedy of defective conditions. Perhaps the main feature was the definition by the City Council of an area in Duddeston and Nechells, comprising 275

acres and containing 6,877 dwellings, as a re-development area for action under the new powers conferred by the Housing Act, 1936. At the end of the year a Housing Bureau was opened to facilitate the co-operation of the Corporation, of property owners, and of tenants, prospective and actual, in the best and fullest use of available dwelling-houses and in the remedy of overcrowding; it is too early as yet to report on the degree of success attained.

One of the largest administrative operations of the year has been the establishment, in accordance with the requirements of the Midwives Act, 1936, of a municipal salaried midwifery service, which with the midwives of the Maternity Hospital and with midwives continuing in private practice, shall effectively serve the City both for midwifery and for maternity nursing. This very considerable alteration has been carried out with but little friction and incidental difficulties.

An unusual feature of the year was the visit of the Royal Sanitary Institute, in their Congress held in the City in July. It can be claimed that Birmingham was able to maintain its high reputation in the eyes of the many representatives of local and of central government of this and of other countries attending the Congress.

Sufficient has been set out to show that the year has been one of marked activity, with increased responsibilities, to which the staff of the Public Health Department have responded willingly and with energy. To them, to yourself, Mr. Chairman, and to the Members of the Committee, I would express my grateful thanks for the support and consideration given throughout a crowded year.

I am,

Your obedient Servant,

H. P. NEWSHOLME,

Medical Officer of Health.

Staff of Public Health Department

GENERAL

Medical Officer of Health

H. P. NEWSHOLME, M.A., M.D., F.R.C.P., B.S.C., D.P.H.

Deputy Medical Officer of Health

MATTHEW BURN, M.C., F.R.C.P. (EDIN.), D.P.H., D.T.M. AND HY.

Senior Assistant Medical Officer of Health

G. C. KELLY, B.S.C., M.D., CH.B., D.P.H.

Senior Assistant Medical Officer of Health for Maternity and Child Welfare

ETHEL CASSIE, M.D., CH.B., D.P.H.

Assistant Medical Officer of Health

W. R. MARTINE, M.B.E., M.D., CH.B., D.P.H.

Secretary

P. McKINNON

Accountant

A. J. ANSCOMBE

Chief Clerk and Statistician

F. T. ROGERS

General Clerical and Financial Staff . . . 61

SANITARY DEPARTMENT

Chief Sanitary Inspector

A. W. TURLEY, CERT. R.S.I.

Deputy Chief Sanitary Inspector and Senior Housing Inspector

D. J. E. LAMB, M.C., CERT. R.S.I.

Assistant to Chief Sanitary Inspector

H. HOWES, CERT. R.S.I.

District Inspectors

C. F. MARK, CERT. R.S.I.

C. E. BYARD, CERT. R.S.I.

H. McDONALD, CERT. R.S.I. AND R.S.I. MEAT AND FOODS

T. BAKER, CERT. R.S.I.

T. SLIM, CERT. R.S.I. AND CERT. SAN. INSP. EXAM. BOARD (LONDON)

J. S. GILHOOLY, CERT. R.S.I. AND S.I.E. JT. BOARD.

S. BAYLIS, CERT. R.S.I.

W. A. PRIEST, CERT. R.S.I.

L. V. AMBLER, CERT. R.S.I. AND S.I.E. JT. BOARD ; R.S.I. MEAT AND FOODS

J. W. DUCK, CERT. R.S.I. ; R.S.I. MEAT AND FOODS

Assistant Sanitary Inspectors

50 AND 4 PUPILS

Special Inspectors

Housing Inspector

H. PARDOE, CERT. SAN. INSP. EXAM. BOARD (LONDON)

Senior Smoke Inspector

G. W. FARQUHARSON, CERT. R.S.I. AND S.I.E. JT. BOARD ; R.S.I. MEAT AND FOODS ; R.S.I. SMOKE

Assistant Smoke Inspector

A. RENCH, CERT. R.S.I. AND S.I.E. JT. BOARD (SMOKE)

Shops Inspectors

W. BESTON

T. INGRAM

A. MULLEN

W. E. LEWIS

Food and Drugs Sampling Officers

J. MARSHALL

J. H. T. KING

H. S. RAWLINS

Milk Inspectors

R. A. HAWKINS

G. E. LEEDHAM, CERT. R.S.I. AND S.I.E. JT. BOARD

S. M. CARRUTHERS, CERT. R.S.I. AND S.I.E. JT. BOARD

W. H. BUTCHER

Canal Boats Inspector

W. G. E. CHILDS

Lodging House Inspector

A. E. MILLARD

<i>Disinfection, etc., Staff</i>	.	.	.	.	.	23
<i>Court Cleansing Staff</i>	.	.	.	.	.	6
<i>Overcrowding Survey Staff</i>	.	.	.	.	.	8
<i>Clerical Staff</i>	.	.	.	.	.	23

Inspection of Cow Sheds and Dairies and of Meat and other Foods

CARRIED OUT BY THE VETERINARY DEPARTMENT ON BEHALF OF THE PUBLIC HEALTH COMMITTEE

Chief Veterinary Officer

BRENNAN DE VINE, M.C., F.R.C.V.S., D.V.S.M., F.R.S.I.

MATERNITY AND CHILD WELFARE

MEDICAL OFFICERS

Senior Assistant for Maternity and Child Welfare

DR. E. CASSIE, M.D., CH.B., D.P.H.

Assistants for Maternity and Child Welfare (Whole-time)

DR. E. BADENOCH, M.D., CH.B.
DR. U. B. COX, M.R.C.S., L.R.C.P.
DR. V. M. CROSSE, M.D., B.S., D.P.H., M.M.S.A.
DR. M. W. CRUICKSHANK, M.B., CH.B.
DR. V. FELLOWES, M.B., CH.B.
DR. B. HATHERLEY, M.B., CH.B., M.M.S.A.
DR. J. T. HILL, M.B., CH.B.
DR. K. M. HIRST, M.B., B.S., D.P.H., M.M.S.A.
DR. E. M. HUMPHERSON, M.B., CH.B., M.R.C.S., L.R.C.P.
DR. B. G. JEMSON, M.R.C.S., L.R.C.P., D.P.H.
DR. V. L. LIDDELL, M.B., CH.B., D.P.H.
DR. I. McKINLAY, M.B., CH.B., D.P.H., L.M.
DR. J. L. McNEILL, M.D., B.CH., B.A.O., L.M.
DR. R. L. MOLLOY, M.B., CH.B., B.A.O., N.U.I.
DR. M. C. O'BRIEN, M.B., CH.B., D.P.H., M.M.S.A.

Part-time Assistant Medical Officers 25

HEALTH VISITORS

Superintendent of Health Visitors

MISS L. B. BAKER, S.R.N., S.C.M., H.V. CERT.

Assistant Superintendent of Health Visitors and Supervisor of Home Helps

MISS F. M. WRIGHT, CERT. INSP. OF NUIS., R.S.I.

Assistant Superintendent of Health Visitors

MISS M. G. MILNER, S.R.N., S.C.M., H.V. CERT.

Tutor for Pupil Visitors

MISS I. H. SINNETT, S.R.N., S.C.M., H.V. CERT.

Superintendents of Centres

<i>Acock's Green</i>	Miss J. E. PROBERT, S.R.N., S.C.M., H.V. CERT.
<i>Bloomsbury Street</i>	Miss F. M. AVERY, S.R.F.N., S.R.N., S.C.M., H.V. CERT.
<i>Bromford</i>	Miss A. GILL, S.R.N., S.C.M., H.V. CERT.
<i>Carnegie</i>	Miss D. F. HOPSON, S.R.N., S.C.M., H.V. CERT.
<i>Erdington</i>	Miss A. FURNISS, S.R.N., S.C.M., H.V. CERT.
<i>Floodgate Street</i>	Miss M. TATTERSFIELD, S.R.N., S.C.M., H.V. CERT.
<i>Glebe Farm</i>	Miss V. W. NOBLE, S.R.N., S.C.M., H.V. CERT.
<i>Greet</i>	Miss A. POLEY, S.R.N., S.C.M., H.V. CERT.
<i>Handsworth</i>	Miss A. VAUGHAN, CERT. INSP. OF NUIS., R.S.I.
<i>Harborne</i>	Mrs. M. DAVIES, C.M.B., QUEEN CHARLOTTE CERT.
<i>Hay Mills</i>	Miss J. M. PEARSON, S.R.N., S.C.M., H.V. CERT.

Superintendents of Centres—continued

<i>Hope Street</i>	Miss I. V. WHITEHEAD, S.R.N., S.C.M., H.V. CERT.
<i>Irving Street</i>	Miss R. M. CHILDS, S.R.N., S.C.M., H.V. CERT.
<i>Kettlehouse</i>	Miss A. E. CHARNLEY, S.R.N., S.C.M., H.V. CERT.
<i>King's Heath</i>	Miss E. HILLMAN, S.R.N., C.S.M., H.V. CERT.
<i>Kingstanding</i>	Miss L. PALFREYMAN, S.R.N., S.C.M., H.V. CERT.
<i>Lancaster Street</i>	Miss M. OWEN, S.R.N., S.C.M., H.V. CERT.
<i>Lansdowne Street</i>	Miss R. OWEN, S.R.N., S.C.M., H.V. CERT.
<i>Monument Road</i>	Miss M. COUSINS, S.C.M., CERT. INSP. OF NUIS., R.S.I.
<i>Northfield</i>	Miss D. LEAK, S.R.N., S.C.M.
<i>Selly Oak</i>	Miss E. C. GREAVETT, S.C.M., H.V. CERT.
<i>Stechford</i>	Miss E. HARRISON, S.R.N., S.C.M., H.V. CERT.
<i>Stirchley</i>	Miss W. M. OLIVER, S.R.N., S.C.M., H.V. CERT.
<i>Stratford Road</i>	Miss M. BEATTY, S.R.N., S.C.M., H.V. CERT.
<i>Sutton Street</i>	Miss E. DIGBY, S.R.N., S.C.M.
<i>Tennal Road</i>	Miss D. MALLEY, S.R.N., S.C.M., H.V. CERT.
<i>Trinity Road</i>	Miss N. POWIS, S.R.N., S.C.M.
<i>Walsall Road</i>	Miss E. WILLIAMSON, S.R.N., S.C.M., H.V. CERT.
<i>Washwood Heath</i>	Miss F. M. POOLE, QUEEN'S NURSE, S.R.N., S.C.M., H.V. CERT.
<i>Weoley Castle</i>	Miss K. MILNER, S.R.N., S.C.M., H.V. CERT.
<i>Wright Street</i>	Miss M. A. HADDON, S.R.N., S.C.M.
<i>Yardley Wood</i>	Miss M. R. SIMONS, S.R.N., S.C.M., H.V. CERT.

<i>Assistant Health Visitors attached to Centres</i>	60
<i>Pupils</i>	28
<i>Immunisation Nurses (whole-time)</i>	2
<i>Health Visitors for Infectious Non-Notifiable Diseases</i>	9

Special Staff for Infant Life Protection

Foster Children

Miss N. M. JONES, S.R.N., S.C.M., H.V. CERT.
Miss M. I. FOSTER, S.R.N., S.C.M., H.V. CERT., DIPLOMA OF NURSING, PUBLIC HEALTH

Unmarried Mothers

Miss L. PARKER, S.R.N., S.C.M., H.V. CERT.
--

Supervisors of Midwives

Miss F. M. RALPH, S.R.N., S.C.M.

Miss B. LAWSON, S.R.N., S.C.M., H.V. CERT.

<i>Municipal Midwives</i>	99
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<i>Dentists</i>	MR. R. V. PAYTON, L.D.S. (FULL-TIME)
	MR. C. T. MORGAN, L.D.S. (PART-TIME)

<i>Nurses :</i>	WHOLE-TIME	1
	PART-TIME	1

<i>Sewing Instructresses</i>	13
<i>Cooking Instructresses</i>	5
<i>Caretakers and Cleaners</i>	39
<i>Meal Attendants</i>	12
<i>Municipal Kitchen :</i>	
COOK	1
ASSISTANT COOKS	2

CANWELL HALL BABIES' HOSPITAL

Resident Medical Officer

MARGARET B. MACLEAN, M.B., CH.B.

Matron

MISS A. BIRTWISTLE, S.R.N., S.R.C.N., S.C.M., CERTIFICATES FOR HOUSEKEEPING,
COOKERY AND HOSPITAL ADMINISTRATION

CARNEGIE INSTITUTE OBSERVATION WARD

Sister-in-Charge

MISS I. WAITE, S.C.R.N., S.C.M.

WAKE GREEN ROAD MATERNITY HOME

Matron

MISS E. THORNE, S.R.N., S.C.M., H.V. CERT.

HEATHFIELD ROAD MATERNITY HOME

Matron

MISS A. MILLBURN, S.R.N., S.C.M.

PYPE HAYES HALL CONVALESCENT HOME

Matron

MISS C. CROOKE, S.R.N., S.C.M.

LORDSWOOD NURSERY

Matron

MISS D. NEALE, S.R.N., S.C.M.

Other Staff

Nursing Staff (including 37 pupils) . . .	106
Domestic Staff	32
Porters, Gardeners, Stokers, Drivers, etc. . .	12
Clerical Staff	9

TUBERCULOSIS DEPARTMENT

MEDICAL STAFF

Chief Clinical Tuberculosis Officer

G. B. DIXON, M.R.C.S., L.R.C.P.

Senior Assistant Tuberculosis Officer

J. R. A. D. TODHUNTER, M.B., B.CH., D.P.H.

Superintendents of Sanatoria

Yardley Green Road	G. B. DIXON, M.R.C.S., L.R.C.P.
West Heath	J. M. TAYLOR, M.D.
Romsley Hill	D. J. PEEBLES, M.B., CH.B., D.P.H.
Salterley Grange	A. D. REID, M.B., CH.B.

Assistant Medical Officers	6
Nursing Staff	120
Domestic Staff	60
Porters, Gardeners, Stokers, Drivers	62
Tuberculosis Visitors	10
Clerical Staff	15
Others	12

INFECTIOUS DISEASES HOSPITAL

Medical Superintendent

J. McGARRITY, M.D., CH.B., D.P.H.

<i>Assistant Medical Officers</i>	6
<i>Nursing Staff</i>	200
<i>Domestic Staff</i>	74
<i>Porters, Gardeners, Stokers, Drivers, etc.</i>	50
<i>Others</i>	9

GENERAL HOSPITALS AND CONVALESCENT HOMES

DUDLEY ROAD HOSPITAL (For Acute Sick)

Medical Superintendent

F. W. ELLIS, M.D., F.R.C.S.

Matron

Miss O. M. SNOWDEN, S.R.N., S.C.M., C.S.M.M.G.

Steward

J. BARRON

<i>Medical Staff</i> : WHOLE-TIME	13
PART-TIME	1

SELLY OAK HOSPITAL (For Acute Sick)

Medical Superintendent

R. P. S. KELMAN, M.B., F.R.C.S.

Matron

Miss M. A. WILSON, S.R.N.

Steward

J. PRESTON

<i>Medical Staff</i> . WHOLE-TIME	19
PART-TIME	5

(Also for Selly Oak Infirmary.)

SELLY OAK INFIRMARY (For Chronic Sick)

Medical Superintendent

R. P. S. KELMAN, M.B., F.R.C.S.

Matron

MRS. M. M. EVANS

Steward

J. PRESTON

<i>Medical Staff</i>	. SAME STAFF AS SELLY OAK HOSPITAL
----------------------	------------------------------------

CONVALESCENT HOMES

Wassell Grove

Matron

Miss V. COLLINS, S.R.N.

Oaklands

Matron

Miss G. KNIGHT, S.R.N., S.C.M., C.N.S.R.

Tower House

Matron

Miss A. E. MONSSON, S.R.N.

Other Staff

<i>Nursing Staff</i>	.	.	.	.	.	.	805
<i>Domestic Staff</i>	.	.	.	.	.	.	254
<i>Porters, Gardeners, Stokers, Drivers</i>	.	.	.	.	.	.	172
<i>Clerical Staff</i>	.	.	.	.	.	.	44
<i>Others</i>	.	.	.	.	.	.	42

VENEREAL DISEASES CLINICS

GENERAL HOSPITAL

Director

E. V. ASSINDER, M.D., B.CH.

Assistant Medical Officers 4

CHILDREN'S HOSPITAL

F. BRAID, M.D., CH.B., M.R.C.P.

LANCASTER STREET

J. H. MORTON, M.D., CH.B., D.P.H.

BIRMINGHAM INFIRMARY

K. M. PEACOCK, M.B., CH.B., D.P.H.

CITY BACTERIOLOGICAL LABORATORY

City Bacteriologist

H. G. M. HENRY, M.D., B.S.

Deputy City Bacteriologist

F. C. LEWIS, M.R.C.S., L.R.C.P.

Assistants and Staff 15

ANALYTICAL LABORATORY

City Analyst

H. H. BAGNALL, B.SC., F.I.C.

Assistant Analyst and Staff 5

PUBLIC VACCINATION

Public Vaccinators (PART-TIME) 22

Vaccination Officers (WHOLE-TIME) 5

WORKS DEPARTMENT

Manager

R. T. COOKE *

Assistant Manager and Workmen 70

Laundry Staff 37

Clerical Staff 6

STEWARD'S DEPARTMENT

Steward

F. HILL

Clerical Staff 5

SECTION A

Statistics and Social Conditions

SUMMARY OF STATISTICS

For the Year 1937

Area (in acres)	51,147
Population (Census, 1931)	1,002,603
Estimated by Medical Officer, 1937	1,043,000
Estimated by Registrar-General, 1937	1,029,700
Total number of houses, including shops, etc., with houses, at April 1st, 1937, according to rate books	276,338
Rateable value (April 1st, 1937)	£7,027,859
Sum represented by a penny rate	£26,946

Extracts from Vital Statistics of the year 1937 :

Births .. Males : 8,655 } Legitimate, 16,350 }	Birth-rate, 16·3
Females : 8,323 } Illegitimate, 628 }	
Stillbirths, 609 : Rate per 1,000 total live and stillbirths	35
Deaths, 12,199. Crude Death-rate,	11·7
Standardised Death-rate,	12·9
Percentage of deaths occurring in public institutions	51

Number of women dying in, or in consequence of, childbirth :

From sepsis : Deaths.. .. .	13
From other causes : Deaths.. .. .	39
	—
Total	52
	—
From sepsis : Rate per 1,000 live and still births.. .. .	0·74
From other causes : Rate per 1,000 live and still births.. .. .	2·22
	—
Total	2·96
	—

Deaths of Infants under one year of age per 1,000 live births :

Legitimate	59
Illegitimate	91
Legitimate and illegitimate	60

Deaths from Cancer	1,692
Deaths from Measles (all ages).. .. .	73
Deaths from Whooping Cough (all ages)	28
Deaths from Diarrhoea (under two years of age)	87

General

The City of Birmingham, with a population of somewhat over 1,000,000, and an area of 51,147 acres, measuring ten miles from north to south, and a maximum of seven miles from east to west, can be regarded as the capital of the Midlands, besides being the largest and most populous provincial city in England. It is situated in the heart of the Midlands, 110 miles from London. To its south and east it merges into the rural stretches of Worcestershire and Warwickshire. On the north and west it is continuous with the succession of towns and of urbanized country constituting the coal-mining, iron-mining, metal-working "black country" of Staffordshire.

Birmingham is markedly hilly in contour, with a height varying from 254 to 821 feet above sea level (254 feet, bed of River Tame at city eastern boundary ; 564 feet, Island Road, Handsworth ; 736 feet, High Street, Quinton ; 821 feet, near Rednal Hill).

Its northern section is traversed by the River Tame, joined more to the east on its right bank by the smaller River Rea, largely canalized as it travels obliquely from south-west to north-east ; while beyond the city's eastern boundary the Tame is joined by the River Cole after the latter has crossed the eastern districts. The navigable waterways comprise a considerable number of canals used regularly for traffic.

Geology

Birmingham rests on a wide belt of Triassic rock. The districts of Harborne, Handsworth, and part of Aston, lying to the west and north, are situated on Bunter beds of sandstone. The main portion of the city, to the east of this, rests on a broad outcrop of Keuper sandstone, or "waterstone." This forms all the higher ground, and provides a healthy and elevated site for dwellings, valuable originally because so freely supplied with water.

So far as the surface soil is concerned, this consists mainly of boulder clay along its western and northern marches, and of sands and gravels and river alluvium over the remainder of the city area, running again into boulder clay to the south.

Industries

While the Black Country industries, closely related to the mines, have centred mainly round raw materials or the cruder products, those of Birmingham itself, while including these, have inclined towards the manufacture of the highly finished products. The city's industries are exceedingly numerous, more than justifying its popular name of the City of a Thousand Trades. It is the centre of the brass smelting and casting industry, of the jewellery trade, and is the home of many metal industries ; of electro-plating ; of varnish, paint and japanning works ; of small arms, motor cars and bicycles ; of screw, and steel pen and tool works ; of button manufacture ; of various food and condiment works, etc.

1.—POPULATION AND MORTALITY STATISTICS

Population

The Registrar-General estimated the population of Birmingham at 1,029,700 on June 30th, 1937. The local estimate, based on the natural increase due to excess of births over deaths with an allowance for migration, was 1,043,000.

It is of some interest to consider the changes in age distribution of the population since 1911, prior to which the city area was so different as to invalidate conclusions. The figures are as follows :

CENSUS FIGURES : BIRMINGHAM

<i>Age Groups.</i>	1911.	<i>Per cent.</i>	1921.	<i>Per cent.</i>	1931.	<i>Per cent.</i>
0 and under 5	93,093	11·1	84,774	9·2	79,535	7·9
5 „ „ 15	170,210	20·3	178,047	19·4	167,260	16·7
15 „ „ 45	416,236	49·5	443,577	48·2	486,699	48·6
45 „ „ 65	125,663	14·9	168,859	18·4	208,589	20·8
65 and over	35,000	4·2	44,187	4·8	60,520	6·0
GRAND TOTAL .	840,202	100·0	919,444	100·0	1,002,603	100·0

It will be seen that the proportion of young children (0-5) and of children of school age (5-15) has steadily and substantially dwindled ; that the proportion of young adults and of those of early middle life (15-45) has been approximately constant ; but that the proportion of the later middle-aged (45-65) and of the aged has markedly increased. The Birmingham population, like that of the country as a whole, is becoming ever an older population with a smaller element of youth and childhood in it. That is at least as significant and serious a phenomenon as the other, not readily detectable in these crude and local data, of an approach to a crest of population beyond which there will be a waning.

Much discussion is being indulged in, official enquiries are being set up, to determine the causes of these serious population changes. While all such investigation is to the good, it is clear that at any rate two factors, likely to be main factors, are at work : that of the national and local public health activities, saving to an older age lives which would otherwise have been cut off earlier ; and that of the widespread application of measures of artificial birth control. This disastrous result should surely be enough to give pause to those who ardently advocate such artificial birth control as an essential part of modern married life. It is remarkable that, with so patent a means of remedying, largely if not completely, this arrest of population with its altered character, we are nationally further than ever from taking that one step which would at the same time lead to a simpler and healthier married and family life.

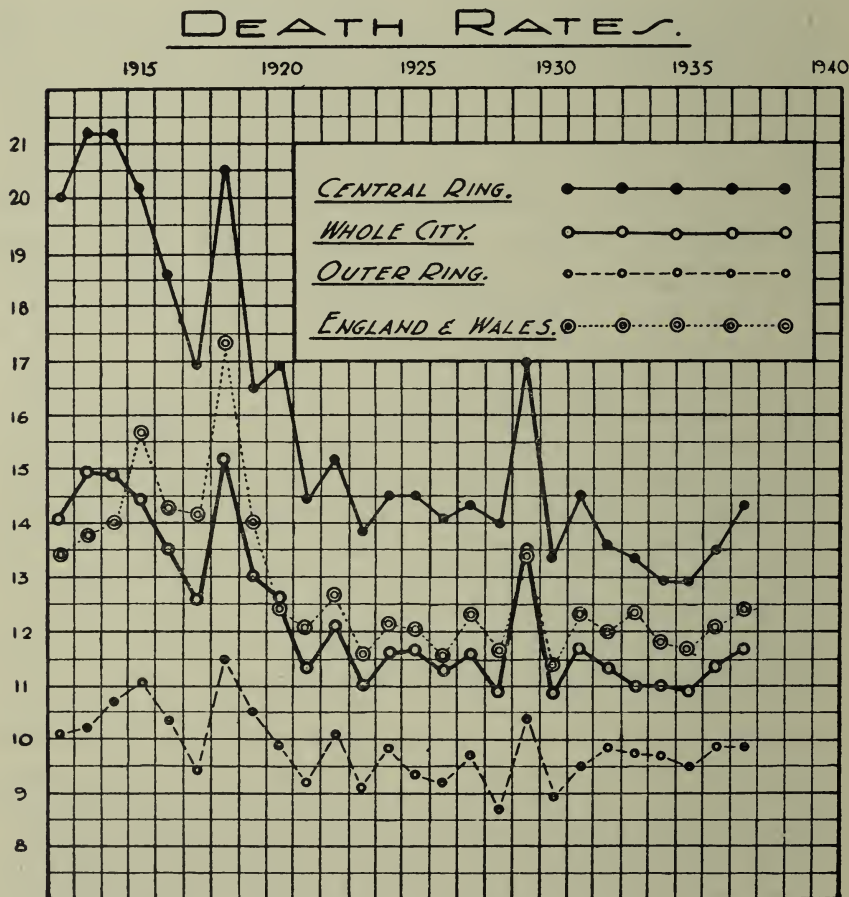
Births (see page 32)

Deaths

The deaths belonging to Birmingham numbered 12,199, as compared with 11,690 in 1936 and 11,233 in 1935. Of these deaths 6,380 were of males and 5,819 of females.

The death-rate for 1937 was 11·7. The average for the ten years prior to 1937 was 11·4, while that for 1936 was 11·3.

The fluctuations in the death-rate during the past twenty-six years are shown on the diagram below, which also shows the rates in the Central and Outer Groups of Wards, together with England and Wales.



Up to 1915 the mortality in Birmingham was above that of England and Wales. During the twenty-two years since that date, with two exceptions, it has been below the rate for the country as a whole.

The following table, setting out the death-rate in 1937 for the eleven largest towns in the United Kingdom, arranged in size, indicates that, despite its size, Birmingham occupies a favourable position among them :

COMPARATIVE DEATH-RATES IN ELEVEN LARGEST TOWNS

	<i>Per 1,000.</i>		<i>Per 1,000.</i>
London	12·5	Leeds	13·4
Glasgow	14·6	Edinburgh	14·0
<i>Birmingham</i>	11·7	Bristol.....	11·4
Liverpool	13·2	Hull.....	12·6
Manchester.....	13·5	Bradford.....	14·7
Sheffield	12·5		

Mortality by Age and Sex

The deaths at different age periods were as follows :

	<i>Males.</i>	<i>Females.</i>	<i>Persons.</i>
Under 1 year	565	451	1,016
1 and under 2	106	65	171
2 and under 5.....	74	83	157
5 and under 15	137	124	261
15 and under 25	201	205	406
25 and under 45	651	549	1,200
45 and under 65	2,026	1,449	3,475
65 and under 75	1,498	1,299	2,797
75 and upwards	1,122	1,594	2,716

The deaths at ages over sixty-five years, numbering 5,513 out of a total of 12,199, are largely to be regarded as in the natural order of things. The remaining half of the deaths may be looked on as potentially and ideally avoidable.

Even under our present limited knowledge and power, the deaths at ages below sixty-five years contain large groups capable of marked reduction, granted healthy conditions of life and whole-hearted co-operation by the public in living the healthy life.

Included among these potentially avoidable deaths are 1,016 deaths *under one year of age*, and a further 328 deaths between one and five years. The causes of mortality in these groups are set out in detail in the section of this report on Maternity and Child Welfare (page 31).

Among *school children (five to fifteen years)* the largest individual causes of death were diphtheria (44) and accidents (40), while nervous diseases (26), tuberculosis (25), and pneumonia (20) were responsible for a not inconsiderable mortality at this age.

Among young people between fifteen and twenty-five years there were 406 deaths (eight per week on an average), of which 148 were due to tuberculosis.

In early adult life (twenty-five to forty-five years) 1,200 deaths occurred. At this age period also tuberculosis heads the list of diseases with 288 deaths.

In later adult life (forty-five to sixty-five years) the largest number of deaths was caused by heart and circulatory diseases (895), cancer being second (763 deaths), respiratory diseases third (411), and tuberculosis fourth with 283.

Fuller details as to the causes of death at different age periods and in the two sexes are given in Table II at the end of this report.

Infant Mortality (see page 35)

Death-rates in Wards

In 1937 the death-rates in the different Wards were as set out below. As in previous years there continue to be marked differences in the death-rates in the various Wards of the City :

DEATH-RATES IN WARDS, 1937

<i>Central Wards.</i>	<i>Middle Ring.</i>	<i>Outer Ring.</i>
St. Paul's 17·5	Lozells 15·7	Soho..... 14·1
St. Mary's 16·2	Aston 14·9	Sandwell 10·5
Duddeston and	Washwood Heath 10·3	Handsworth 11·9
Nechells 13·3	Saltley 11·1	Perry Barr 5·9
St. Bartholomew's 14·6	Small Heath 12·1	Erdington 14·1
St. Martin's and	Sparkbrook 14·8	Gravelly Hill 13·1
Deritend 15·1	Balsall Heath.... 14·7	Bromford..... 9·7
Market Hall 14·1	Edgbaston 12·2	Stechford..... 9·1
Ladywood 13·2	Rotton Park 11·5	Yardley 9·5
	All Saints 12·6	Acocks Green.... 8·9
		Hall Green 7·8
		Sparkhill 13·5
		Moseley and King's
		Heath 11·9
		Selly Oak 11·3
		King's Norton .. 10·2
		Northfield 7·4
		Harborne..... 9·4
Average 14·3	Average 13·0	Average 9·8

In November, 1934, many alterations were made in the boundaries of the Wards of the City, making it impossible to compare rates for individual Wards in years subsequent to that date with those in earlier years. It is, however, roughly correct to compare the total figures for the Central,

Middle Ring and Outer Ring of Wards with those for previous years and the mean death-rates for the three groups are given as follows :

	<i>Central Wards.</i>	<i>Middle Ring.</i>	<i>Outer Ring.</i>
1930.....	13·3	10·8	8·9
1931.....	14·5	12·3	9·5
1932.....	13·6	11·7	9·8
1933.....	13·3	11·4	9·7
1934.....	12·9	12·0	9·6
1935.....	12·9	11·6	9·5
1936.....	13·5	12·2	9·8
1937.....	14·3	13·0	9·8

The diagram on page 6 shows the death-rate during the past twenty-six years in the City as a whole contrasted with that of the Central Wards and of the Outer Ring and England and Wales. It will be noted that the mortality in the Central Wards is much nearer to that of the whole City than it was twenty-six years ago. Nevertheless, the difference between the Central and the Outer Wards is still great. In 1937 there were 2,855 deaths in the Central Wards. If the death-rate in them had been as low as it was in the Outer Ring 897 of these deaths would have been avoided.

In the next table the mortality from some of the more prominent causes of death is shown for the three groups of Wards.

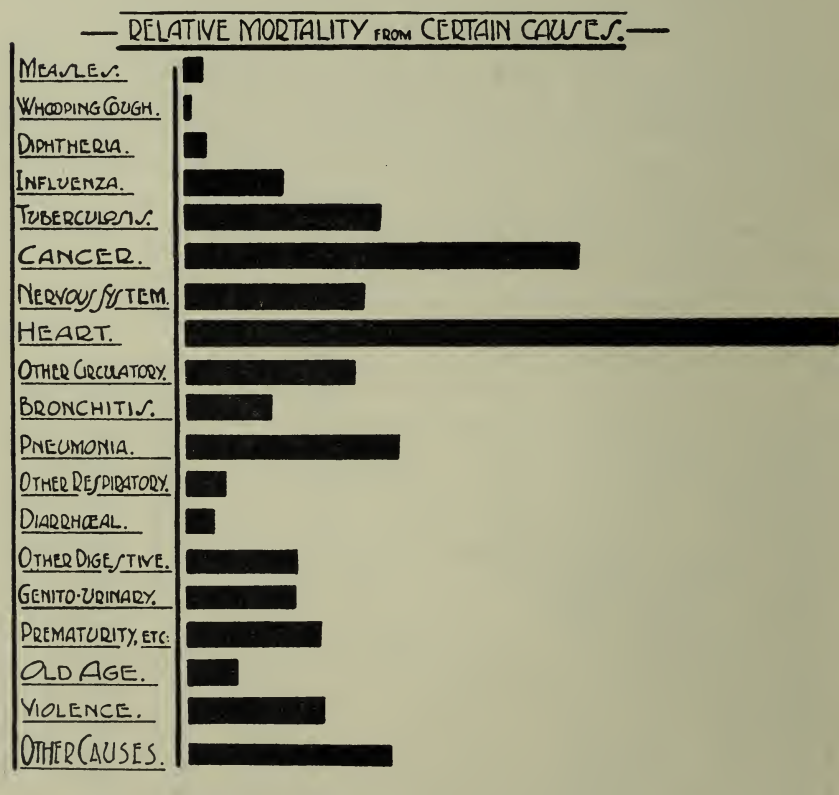
DEATH RATES IN GROUPS OF WARDS, 1937.

	<i>Central Wards.</i>	<i>Middle Ring.</i>	<i>Outer Ring.</i>	<i>City.</i>
Measles	·19	·04	·04	·07
Whooping Cough	·04	·03	·02	·03
Diphtheria	·17	·05	·06	·08
Influenza	·44	·45	·36	·40
Tuberculosis of Respiratory System	1·07	·80	·55	·72
Other Forms of Tuberculosis	·11	·08	·06	·08
Cancer : Malignant Disease	1·87	1·85	1·37	1·62
Diseases of Nervous System and Sense Organs....	·83	·91	·59	·73
Diseases of Heart.....	3·21	3·27	2·17	2·70
Other Diseases of Circulatory System.....	·84	·83	·57	·70
Bronchitis	·57	·40	·24	·35
Pneumonia : All Forms	1·40	·84	·70	·88
Other Diseases of Respiratory System.....	·22	·20	·13	·17
Diarrhœa and Enteritis	·13	·13	·09	·11
Other Diseases of Digestive System.....	·39	·43	·38	·40
Non-Venereal Diseases of Genito-urinary System..	·45	·52	·40	·45
Premature Birth and Diseases of Early Infancy..	·69	·53	·50	·55
Old Age	·11	·20	·23	·21
Violence : All Forms	·59	·55	·52	·55
Other Causes	·99	·91	·84	·89

In almost every instance the mortality is higher in the Central Wards than in the Outer Ring. This excessive mortality is very noticeable in the case of pneumonia, tuberculosis and measles. In the case of pneumonia, the deaths last year in the Central Wards numbered 280. If the mortality had been no higher than in the Outer Ring they would have numbered 140, a saving of 140 lives.

Principal Causes of Death

Particulars of the deaths from individual causes at different age periods and in the two sexes are set out in Table II at the end of this Report. The relative mortality attributable last year to some of the more important of these causes is shown in the diagram below.



The statistics relating to infectious diseases (including tuberculosis) are dealt with in detail in Section F of this Report, and those relating to diarrhoea, prematurity, and other infantile complaints in Section B.

Cancer

The deaths from cancer numbered 1,692, as compared with 1,632 in 1936. The part of the body primarily affected was as follows :

Buccal Cavity and Pharynx.....	99
Digestive Organs and Peritoneum	856
Respiratory Organs.....	194
Female Genital Organs	141
Breast	182
Male Genito-urinary Organs	100
Skin	12
Other Organs	108

The death-rate in Birmingham and in England and Wales is shown in the table below :

DEATH-RATE PER 1,000 FROM CANCER

	<i>Birmingham.</i>	<i>England and Wales.</i>		<i>Birmingham.</i>	<i>England and Wales.</i>
1928 ..	1·35	1·42	1933..	1·43	1·53
1929 ..	1·34	1·44	1934..	1·43	1·56
1930 ..	1·43	1·45	1935..	1·52	1·59
1931 ..	1·46	1·48	1936..	1·57	1·62
1932 ..	1·45	1·51	1937..	1·62	—

The death-rates for individual Wards are here of no value. The average death-rate in 1937 for the Central Wards was 1·87, for the Middle Ring of Wards 1·85, and for the Outer Ring 1·37. It has to be remembered that the Outer Ring, containing as it does the majority of the housing estates, is likely thereby to have a younger population, with, consequently, a lower cancer death-rate.

Facilities available for the Diagnosis and Treatment of Cancer

Facilities provided by the Local Authority.

At Dudley Road Hospital a Deep X-ray Therapy Department has been under active operation for the past fourteen years. Two theatres are provided for the treatment of cases, fitted with a Stabilivolt machine (200 k.v.) and a neo-intensive machine (180 k.v.) respectively. Four beds for men and four for women are provided regularly for in-patient treatment, and others utilised as necessary.

Radon is obtained from the Birmingham University. Cases considered suitable for radium treatment are referred to the Radium Centre at the Birmingham General Hospital.

The Public Health Committee continue to pay an annual contribution of £250 to the Birmingham Branch of the British Empire Cancer Campaign in support of their work on cancer research.

In 1934 a legacy of £1,000 was left to the City Council by the late J. R. Turner for cancer research work. It was decided to pay the legacy to the British Empire Cancer Campaign (Birmingham Branch) over a period of three years for research work in connection with cancer of the lungs.

Facilities provided by the Radium Centre and Voluntary Hospitals.

The Birmingham General Hospital in conjunction with the University became one of the National Radium Centres in 1930. There are thirty-two beds available for cancer treatment at that hospital. The radiation therapy comprises treatment by radium and by X-ray.

Radium beam therapy is now available at the General Hospital, the apparatus at present containing two grammes, which will shortly be increased to three grammes.

In 1937 there were nearly $3\frac{1}{4}$ grammes of radium at the Birmingham General Hospital, and .37 grammes at the Queen's Hospital, together with .3 grammes at the Women's Hospital and 41.4 milligrammes at the Children's Hospital.

In connection with the National Radium Centre a radon service has been established at the Birmingham University supplying radon to a large number of hospitals within a radius of about forty miles.

An X-ray therapy service is provided at the General Hospital. The apparatus comprises four deep therapy sets and one Chaoul set. The facilities for X-ray therapy are available also for patients from the Queen's Hospital, while there is free interchange of patients between the voluntary and municipal hospitals in respect of both X-ray and radium treatment.

Diseases of the Heart and Blood Vessels

There were 3,551 deaths from these diseases as compared with 3,558 in 1936. The death-rates during the past ten years have been as follows :

	<i>Birmingham.</i>	<i>England and Wales.</i>		<i>Birmingham.</i>	<i>England and Wales.</i>
1928 ..	2.41	2.69	1933 ..	2.94	3.30
1929 ..	2.76	3.06	1934 ..	3.04	3.33
1930 ..	2.57	2.83	1935 ..	3.14	3.46
1931 ..	2.90	3.14	1936 ..	3.43	3.78
1932 ..	2.73	3.18	1937 ..	3.40	—

The death-rates in Birmingham are somewhat below those in England and Wales. Of the total deaths 25·2 per cent occurred between the ages 45-65, 32·6 per cent between 65-75, and 36·5 per cent at ages over 75.

In relation to ward distribution the death-rate during 1937 in the Central Wards was 4·04, the Middle Ring of Wards was 4·10, and the Outer Ring of Wards was 2·73.

Bronchitis, Pneumonia and other Respiratory Diseases

The mortality from these diseases varies greatly from year to year, being influenced markedly by weather conditions and by the prevalence of such diseases as influenza, measles or whooping-cough. In 1937 the mortality was higher than in recent years.

The mortality in recent years has been as follows :

	<i>Birmingham.</i>	<i>England and Wales.</i>		<i>Birmingham.</i>	<i>England and Wales.</i>
1928 ..	1·56	1·51	1933 ..	1·32	1·39
1929 ..	2·26	2·10	1934 ..	1·26	1·24
1930 ..	1·32	1·30	1935 ..	1·09	1·16
1931 ..	1·61	1·60	1936 ..	1·22	1·23
1932 ..	1·47	1·36	1937 ..	1·40	—

Unlike heart disease, respiratory diseases generally cause a somewhat higher mortality in Birmingham than in England and Wales as a whole. A considerable part of the mortality occurs in early life, the deaths last year being distributed as follows :

	<i>No. of Deaths</i>	<i>Per Cent.</i>		<i>No. of Deaths</i>	<i>Per Cent.</i>
Under 1 year.....	173	11·8	25 and under 45 years..	150	10·3
1 and under 2 years..	52	3·6	45 " 65 " ..	411	28·1
2 " 5 " ..	26	1·8	65 " 75 " ..	272	18·6
5 " 15 " ..	22	1·5	75 and over.....	330	22·6
15 " 25 " ..	25	1·7	All Ages	1,461	—

The death-rates in the several areas of the City in 1937 were as follows : Central Wards, 2·19 ; Middle Ring, 1·43 ; Outer Ring, 1·06.

It will be seen that respiratory diseases are much more common as a cause of death in the Central Wards than elsewhere.

SECTION B.

**General Provision of Health
Services**

SECTION B.

GENERAL PROVISION OF HEALTH SERVICES

1. Public Health Officers.

See list at beginning of Report (pp. ix—xvi).

The staff may be summarized as follows :

General Central Staff, including Central Clerical and Financial Staff	69
Sanitary Department	143
Maternity and Child Welfare Department	520
Tuberculosis Department	290
Infectious Diseases Staff	340
General Hospitals and Convalescent Homes Staff	1365
Works Department	114
Bacteriological Department	17
Analytical Department	6
Public Vaccination	27
Steward's Department.. .. .	6

Inspection of cowsheds and dairies and of meat and other foods is carried out by the Veterinary Department on behalf of the Public Health Committee.

Venereal Diseases Clinics are held at four centres, under the directorship of a medical officer at the General Hospital.

New Legislation in Force

The following new legislation coming into force during the year ending 31st December, 1937, was delegated to the Public Health and Maternity and Child Welfare Committee :

The appropriate sections of Housing Act, 1936. In operation as from 1st January, 1937.

The appropriate sections of Public Health Act, 1936. In operation as from 1st October, 1937.

The appropriate sections of Factories Act, 1937. In operation as from 1st July, 1938.

The appropriate sections of Agriculture Act, 1937. In operation as from such date as the Minister of Agriculture and Fisheries may direct.

Midwives' Act, 1936, with the exception of sub-sections 3, 4, 5 and 6 of Section 2. In operation as from 1st July, 1937.

Shops Act, 1936. In operation as from 1st January, 1937.

Retail Meat Dealers, Shops (Sunday Closing) Act, 1936. In operation as from 1st January, 1937.

Shops (Sunday Trading Restrictions) Act, 1936. In operation as from 1st May, 1937.

2. General Services.

(a) Laboratory facilities

I—City Bacteriological Laboratory

The laboratory, under Dr. H. Henry as Director, occupies the top floor, and its animal house the flat roof, of a building erected in Great Charles Street in 1932, and shared, as to the other floors of that building, with the City Analyst's Department and the Anti-Tuberculosis Centre.

The bacteriological laboratory deals with public health specimens of all types ; with the supply of outfits to practitioners ; with the preparation of measles prophylactic serum ; and with the storage and supply on request of diphtheria antitoxin, and of various sera requiring cold storage.

The work done in the City Bacteriological Laboratory is set out in the statement below :

	<i>No. of Specimens.</i>
Diphtheria Swabs :	
(a) For Practitioners	7,363
(b) For Fever Hospitals	12,279
(c) For Virulence Test.....	4,068
Fæces	1,380
Milks	745
Milk for Tuberculosis	2,498
Hæmolytic Tests	294
Sputum for Tuberculosis	2,806
Shell-fish	63
Water Samples	891
Vaccines Prepared	13
Widal's Reaction	1,371
Miscellaneous	8,005
Venereal Diseases :	
Blood for Wassermann Reaction.....	13,086
Cerebro-spinal Fluid—	
(a) For Wassermann Reaction	578
(b) For Cell Count	133
Serum for Spirochætes	3
Films for Gonorrhœa.....	13,550
Urine Examinations :	
(a) Microscopic	3
(b) Chemical	421
Gonococcal Fixation Tests	3,556
Vaccines Prepared	535
Cultures Prepared	12,708
Van den Bergh's Tests	696
Sigma Reaction	516
Miscellaneous	5
TOTAL	87,566

II—City Analytical Laboratory

The City Analytical Laboratory, under the direction of the City Analyst, Mr. Bagnall, occupies the second floor of the building in Great Charles Street referred to in the preceding paragraph.

The following statement indicates the samples analysed in the City Analyst's Department :

	1937.
<i>Samples Analysed :</i>	
Food and drug samples	5,613
Soot gauge samples	26
Fertilisers and feeding stuffs.....	19
Miscellaneous samples	1,063
TOTAL	6,721
<i>Samples Adulterated, etc. :</i>	
Samples adulterated with preservatives only ..	4
Samples adulterated in other ways.....	265
Unmarked or improperly marked margarine..	1
False labels	9
Number of vendors of incorrect samples.....	171
Number of prosecutions	16
Number of fines	15
Amount of fines and costs	£57/3
Number of cautions	187

Details of this work are given in the Report of the City Analyst, printed separately.

III—Hospital Laboratories

Laboratories, appropriate to the size and purpose of the institution, are provided at :

Dudley Road Hospital : General and Biochemical.

Selly Oak Hospital : General and Biochemical.

Little Bromwich Hospital : Bacteriological, Infectious Diseases.

Yardley Green Road Sanatorium : Bacteriological, etc., Tuberculosis.

Carnegie Institute : General and Biochemical.

(b) Ambulance Services

The Public Health Committee have four ambulances for acute infectious diseases (Little Bromwich Hospital) ; two for tuberculosis ; and seven for acute or chronic general disease (five at Dudley Road Hospital, two at Selly Oak Hospital).

The Watch Committee have eight police ambulances for accidents and other casualties.

An ambulance service of sixteen ambulances is maintained for general purposes by the Birmingham Hospitals Contributory Association in conjunction with the St. John Ambulance Brigade, subject to payment according to means by the patient, and the payment of the balance up to 10s. per case by the local authority.

There are also ambulances at certain of the large voluntary hospitals and at certain works.

(c) Nursing in the Home

Arrangements have been in force, over a period of years, for the home nursing of a number of conditions by the district nurses of the Birmingham District Nursing Association. The following cases were thus nursed during 1937 :

Measles	52
Measles with Pneumonia	20
Whooping Cough	2
Pneumonia	837
Puerperal Pyrexia	64
TOTAL	975

Apart from hospital treatment, cases of ophthalmia neonatorum^f and of other forms of ophthalmia or eye injury capable of leading to blindness are visited in their homes, as far as necessary, by nurses from the Eye Hospital, an annual grant being paid to the hospital in respect of this service.

Removal of aged and infirm

During 1937 forty cases were investigated with a view to making use of Section 38 of the Birmingham Corporation (General Powers) Act, 1929, as compared with thirty cases in 1936, twenty-five in 1935 and thirty-three in 1934. Of these cases seventeen were males and twenty-three females. Eleven of the cases were admitted to institutions or otherwise relieved, and twenty-nine failed to fulfil the requirements and conditions of the section. It was not found necessary to obtain a magistrate's order in any case.

On only one occasion was it found necessary to make use of Section 48 of the Birmingham Corporation Act, 1935, and a magistrate's order for the removal of the person to hospital was obtained. In seven other cases it was found possible to arrange other means of disposal without taking the case to a court of summary jurisdiction.

(d) Treatment Centres and Clinics

- Anti-Tuberculosis Centre.* (See page 208)
- Maternity and Child Welfare Centres.* (See p. 55)
- Public Dispensaries (Voluntary)*

Dispensaries for the treatment of the sick poor are provided by five different voluntary societies in the city, chief among which is the Birmingham General Dispensary. This latter with different branches affords help to some 57,500 cases annually, while the others provide treatment in a lesser proportion.

(e) Hospitals

General

The annual report for 1936 contained particulars of a hospital survey of the city. No alteration in the position has occurred since then, apart from the extensions mentioned on p. 29 relating to voluntary hospitals.

The part which the hospitals—voluntary and municipal—play in the treatment of sickness may be inferred in some degree from the fact that last year 6,262 deaths out of a total of 12,199 occurred in hospitals and kindred institutions. Details of these deaths are as follows :

Dudley Road Hospital	1,247
Selly Oak Hospital	610
Selly Oak Infirmary	724
General Hospital	428
Queen's Hospital	263
Children's Hospital	244
Women's Hospital and Taylor Home	60
Maternity Hospital	60
City Fever Hospitals, Babies' Hospital and Maternity Home....	260
City Mental Hospitals	149
City Sanatoria.....	333
Birmingham Infirmary	1,062
Erdington House	411
Private Hospitals	132
Other Hospitals	52
Institutions outside the City	227

PUBLIC GENERAL HOSPITALS

General Statistics

The statistics relating to the work of Dudley Road and Selly Oak Hospitals and Selly Oak Infirmary are given below.

(a) IN-PATIENTS

	<i>Acute Sick.</i>		<i>Chronic Sick.</i>
	<i>Dudley Rd. Hospital.</i>	<i>Selly Oak Hospital.</i>	<i>Selly Oak Infirmary.</i>
Total number of admissions (including infants born in hospital)	14,728	11,084	3,026
Number of women confined in hospital	1,345	874	—
Number of live births	1,289	840	—
Number of stillbirths	70	47	—
Number of deaths among the newly-born (under four weeks)	92	24	—
Number of maternal deaths (confined in hospital)	10	3	—
Total number of deaths	1,274	628	758
Total number of discharges (including infants born in hospital)	13,389	10,453	2,269

(b) OUT-PATIENTS

	<i>Acute Sick.</i>		<i>Chronic Sick.</i>
	<i>Dudley Rd. Hospital.</i>	<i>Selly Oak Hospital.</i>	<i>Selly Oak Infirmary</i>
Number of persons seen in out-patient department	31,014	14,854	<i>Run in conjunction with Selly Oak Hospital.</i>
Total number of attendances	119,658	76,078	
Number of women seen at ante-natal clinic	1,225	847	
Total attendances	3,640	3,521	

(c) CLASSIFICATION OF IN-PATIENTS DISCHARGED OR DIED

	<i>Acute Sick.</i>		<i>Chronic Sick.</i>
	<i>Dudley Rd. Hospital.</i>	<i>Selly Oak Hospital.</i>	<i>Selly Oak Infirmary.</i>
(a) Acute infectious diseases	254	72	46
(b) Influenza	258	79	5
(c) Tuberculosis :			
Pulmonary	112	49	7
Non-pulmonary	33	29	13
(d) Malignant disease	342	182	192
(e) Rheumatism :			
(1) Acute rheumatism (rheumatic fever), together with sub-acute rheumatism and chorea	302	160	35
(2) Non-articular manifestations of so-called " rheumatism " (muscular rheumatism, fibrositis, lumbago, and sciatica)	131	9	11
(3) Chronic arthritis	70	51	46
(f) Venereal disease	13	16	2
(g) Puerperal pyrexia	19	21	—
(h) Puerperal fever	2	—	—
(i) Other diseases and accidents connected with child-bearing	948	614	—
(j) Mental diseases	46	22	13
(k) Senile decay	1	9	137
(l) Violence	1,668	1,320	118
In respect of cases not included above :			
(m) Diseases of the nervous system and sense organs	290	252	275
(n) Diseases of the respiratory system	1,946	822	609
(o) Diseases of the circulatory system	545	386	316
(p) Diseases of the digestive system ..	2,950	2,739	416
(q) Diseases of the genito-urinary system	1,036	791	90
(r) Diseases of the skin	549	527	106
(s) Other diseases	464	1,088	365
(t) Maternity cases (mothers and babies)	2,609	1,683	70
(u) Any persons not falling under above headings	75	160	155

Dudley Road Hospital

This is a municipal general hospital for the acute sick, and is situated in the north-western portion of the city. Erected in 1887, this building is on the pavilion system, with eleven blocks of three storeys extending at right angles from a main corridor running from north to south. These eleven blocks together with four separate units, originally provided an accommodation of 1,500 beds, the numbers remaining unchanged till the outbreak of the Great War.

From March, 1915, till April, 1920, it was used entirely as a military hospital. Re-opened as an acute general hospital in April, 1920, it now contains 827 beds divided as follows :

	<i>Men.</i>	<i>Women.</i>	<i>Children.</i>
Medical	122	152	164
Surgical	144	94	22
Gynæcological	—	62	—
Isolation	—	—	17
Maternity	—	50	—
TOTAL.....	266	358	203

There is, in addition, a sick bay for nurses containing twenty beds. The reduction in numbers from that provided in the original building arose from the reconstruction of Blocks 1 and 2 and two of the four units mainly for staff, the accommodation for whom at present is 465.

The Pathological Block was rebuilt in 1929, and contains also the Bio-chemical Department. At the same time a large extension was made to the nurses' home.

One of the separate buildings—the Maternity Department—has recently been pulled down and a new Maternity Hospital is being built on the site, the department in the meantime being accommodated in Block 9 of the main hospital.

The fourth separate block is the children's section, containing 120 cots in wards of ten cots each.

Plans are now being prepared for a new Out-patient Department and a new X-ray Department, both having quite outgrown their present accommodation.

Owing to the regretted illness of Dr. F. W. Ellis, the Medical Superintendent, it is not possible to include in this report Dr. Ellis's usual annual review of the activities of the hospital. The table set out on the previous page sufficiently indicates that the hospital has been exceedingly busy during 1937. There have been frequent occasions when it has been overcrowded beyond the standard accommodation, and there have been, unfortunately, all too frequent occasions when it has become

impossible to admit without some preliminary delay cases urgently needing admission. There is no doubt that the hospital staff will feel a strong sense of relief when the additional beds to be opened at the Hospitals Centre become available, and to that extent relieve the pressure on the beds in the city hospitals.

During the year the Maternity Department has continued to function in the three wards in Block 9 temporarily allocated to that purpose pending the completion of the new maternity block. The construction of this block is making satisfactory progress. Meanwhile, under exceedingly difficult conditions, the work of the department has continued to be maintained during the year.

The need for a new X-ray Department to replace the present out-of-date and seriously overcrowded rooms used for that purpose has been under review, and plans have been prepared and radiographic equipment considered from that standpoint.

The difficulties in administration of the hospital referred to in the report for 1936 arising from the inability effectively to cope with the admission of chronic sick into Birmingham Infirmary and Selly Oak Infirmary, and a consequent back-pressure on hospital beds which have to retain patients who have not in certain cases been appropriate for hospital treatment, but rather for infirmary care, has continued during the year, and during the early months of 1938 has been the subject of conferences between the Public Health and Public Assistance Committees.

Selly Oak Hospital

This is a municipal general hospital for the acute sick, and is pleasantly situated on the border of Bournville. The hospital has 520 beds, classified as follows :

- General Medical Wards.
- General Surgical Wards.
- General Children's Wards.
- Male Urological Ward.
- Fracture Ward.
- Gynæcological Ward.
- Ear, Nose and Throat Wards.
- Maternity Department.
- Staff Sick Bay.

The first buildings were erected in 1897, and the last addition to the patient accommodation was in 1909. The most recent building erected is the Pathological and Bio-chemical Block (1934).

The Institution was originally built as the Infirmary to the adjoining Selly Oak House.

At the beginning of the year the City Council gave authority for the provision of 120 additional beds, in part to remove acute cases occupying

some 100 beds in Selly Oak Infirmary, and in part to provide a cubicled isolation ward. These additional beds were to be provided in the form of :

- (a) a three-storey extension of "A" Block, to give an addition of twenty-eight beds on each storey (total, eighty-four beds), together with an operating theatre for ear, nose and throat cases ; and
- (b) a cubicle isolation ward of thirty-six beds.

Report by the Medical Superintendent, MR. R. P. S. KELMAN.

The year has again closed with the greatest turnover of patients the hospital has ever experienced. During the last ten years the annual admissions, in spite of the fact that there has been no increase in the accommodation (520 beds) have increased from 6,131 to 11,084. This has been accomplished by diminishing the duration of stay of patients and, in later years, by considerable ward overcrowding. It is interesting to note that the average duration of stay of patients in the hospital for the year is 17·8 days, which is exactly the same as for the year 1936, in spite of the fact that there has been an increase in admissions of 687 and that 14 per cent of the admissions were retained in the hospital for more than four weeks.

The pressure on the beds, which has at times been highly dangerous, has been continuous throughout the year, and is shown by the high average occupied beds, viz., 512. This has necessitated increasing the nursing staff to the limits of the accommodation of the nurses' home. These figures demonstrate the difficulties under which the staff have been working. It has been impossible to maintain an organised system for ward admissions, since where beds have become vacant patients were admitted irrespective of their medical classification. This has meant that every ward has admitted cases daily throughout the year without respite. I should like to place on record the loyal and willing co-operation of all concerned in carrying the hospital through this most anxious year.

The appointment to the post of Matron of Miss Mary Wilson, who has been first Assistant Matron since June, 1916, has been welcomed by us all. Our only regret is that her term of office will be a short one as she will retire from the service in September, 1938.

The Ear, Nose and Throat Department has encroached still further on the hospital resources. The urgent nature of aural cases makes their immediate admission essential ; so that these cases are to be found in every ward of the hospital with the one exception of the Maternity Department. The disadvantages of this are apparent in that there is more difficulty in supervision and in maintaining the specialised nursing required. Difficulty is still being experienced through lack of isolation facilities and the large number of ear, nose and throat admissions accentuates this.

I regret that it has again been impossible to release a complete ward unit for re-decoration. As this is the best means of "sterilising" a ward unit it becomes most necessary where the turnover is the greatest.

The usual clinical meetings of the Selly Oak Hospital Medical Society have been held throughout the year, and the University of Birmingham Medical Society and the Pathological and Clinical Section of the British Medical Association met at Selly Oak Hospital on 5th May and 29th October respectively.

The following figures show briefly the work of some of the special departments :

<i>Pathological Department :</i>	
Examinations	18,568
Autopsies	414
<i>Bio-chemical Department :</i>	
Examinations	6,164
<i>Radiological Department :</i>	
Radiological examinations	18,661
Fluoroscopic examinations	1,834
Films used	18,002
<i>Massage and Electro-therapeutic Department :</i>	
Cases	5,367
<i>Dental Department :</i>	
Attendances	2,416

Although the new extensions will not be ready for occupation during 1938, the fact that they are under way gives encouragement for the coming year.

Selly Oak Infirmary

This institution of 670 beds adjoins Selly Oak Hospital and is for the accommodation of the chronic sick of both sexes of all ages.

The Infirmary was commenced in 1871 to take the place of the work-house at the village green of King's Norton. Various extensions were added from time to time, the most notable being that of Block 5 (1900), which now accommodates 170 female patients. With the formation of the Birmingham Union (1912) the character of Selly Oak Infirmary gradually changed from that of a workhouse into that of an institution for the chronic sick.

Report of the Medical Superintendent, MR. R. P. S. KELMAN.

The following are some statistics showing the work done :

Total admissions.....	3,026
Average daily occupied beds.....	658
Highest number of occupied beds on any one day.....	698
Lowest number of occupied beds on any one day.....	634

Comparison with the bed accommodation will show that Selly Oak Infirmary has been taxed to its utmost capacity during the year. It has only been with great difficulty that the unusual number of admissions has been dealt with.

The work done in institutions such as Selly Oak Infirmary, dealing with the chronic sick, is equal in importance in its particular sphere with that of acute hospitals.

Praise is due to the staff for the excellent work carried out during the year.

GENERAL CONVALESCENT HOMES

WASSELL GROVE CONVALESCENT HOME

This Home, previously a large private residence, was acquired in August, 1914, and is used for convalescent women and children.

It is situated on the Clent Hills, Worcestershire, and surrounded by its own grounds and gardens and has accommodation for twenty-eight women and fifteen children under the age of sixteen. It is under the direction of the Medical Superintendent of Dudley Road Hospital, through whom admissions are arranged from Dudley Road and Selly Oak Hospitals and from the Public Assistance Relief Department.

The Home has been open throughout the year. The total number of admissions was 582, as compared with 623 during the year 1936. Of the 582 there were sixty-five out-relief cases: 267 from Dudley Road Hospital, and 228 from Selly Oak Hospital.

The discharges from the Home include 214 women fit for work and ninety-nine improved, and 213 children quite well and twenty-six improved.

The daily average during the year was thirty-two and the lowest daily average was thirteen during the month of December.

OAKLANDS CONVALESCENT HOME

This Convalescent Home, formerly a private house, is situated on the main Worcester Road about one mile from Droitwich and, prior to its purchase by the Birmingham Board of Guardians in 1924, was used by the Ministry of Pensions for ex-Service men needing brine bath treatment. The Board of Guardians opened the Home with thirty beds as a Convalescent Home for Men. Later it was decided that the Home be used also for boys.

The Home now has accommodation for forty-one men and boys, and is under the direction of the Medical Superintendent of Selly Oak Hospital, through whom admissions are arranged from Dudley Road and Selly Oak Hospitals and the Public Assistance Relief Department.

Report by the Medical Superintendent, MR. R. P. S. KELMAN.

This Convalescent Home has again proved its value, particularly in dealing with medical cases. All the patients have improved by their stay.

The admissions of men and boys for the year totalled 557, and the conditions for which treatment was continued at the Home were as follows :

Pneumonia	166
Rheumatism.....	125
Debility.....	70
Gastric and duodenal ulcer.....	66
Bronchitis.....	43
Various post-operative cases.....	30
Empyema.....	26
Diabetes	12
Neurasthenia	10
Cardiac conditions	9
TOTAL	557

TOWER HOUSE

This large private house and grounds, situated in pleasant country in the southern rural outskirts of Birmingham and immediately adjacent to the large Barnt Green reservoir, was a gift to the Corporation by Mrs. O'Shaughnessy in 1928. It is used as a rest house and convalescent home for nurses from the various city hospitals, and has accommodation for eight inmates apart from staff. It is under the administration of the Medical Superintendent of Dudley Road Hospital.

During the year 1937 there were 266 nurses admitted.

VOLUNTARY HOSPITALS

The accommodation available in the voluntary hospitals in the city was reviewed in the annual report for 1936. The bed accommodation since then has altered only in respect of extensions and alterations at the Ear and Throat Hospital, where twenty-one additional beds for general patients and ten beds for private patients have been provided, together with seventeen convalescent beds.

The construction of the fine Hospital Centre, with its immediate intended provision of 250 to 300, rising to 450 beds, and its subsequent contemplated expansion at some future date to some 720 beds, is making steady progress, and it is anticipated the first beds will become available for occupation during the autumn of 1938. The provision of these additional beds, besides being of inestimable value to the medical school of the University, will bring welcome relief to voluntary and public hospitals alike, pressed as these are at present to find a sufficiency of accommodation for those who desire to enter them.

HOSPITAL CO-ORDINATION

The Birmingham Hospitals Council continues to take an active and most helpful part in the co-ordination of the hospital services of the city : through its Voluntary Hospitals Committee, in the mutual discussion and co-ordination as between the voluntary hospitals of the problems of bed accommodation, etc., with which they are faced, and through its Co-ordination Committee in the balancing of the respective problems of the voluntary and of the public hospitals. During the early months of 1938 the Hospitals Council has applied itself with great skill, at the request of the representatives of the voluntary hospitals, to the highly difficult task of assessing the hospital bed requirements in relation to the opening of the new Hospitals Centre and the allied question of the continuance of the two existing great voluntary general hospitals.

INSTITUTIONAL MEDICAL SERVICES

(Local Government Act, 1929)

No alteration has taken place during the year in the allocation of institutional with medical services to the Public Health Committee, Public Assistance Committee, Mental Deficiency Acts Committee, etc.

POOR LAW MEDICAL OUT RELIEF

The policy indicated in previous reports whereby the Public Assistance Committee make temporary appointments in respect of vacancies occurring in the medical staff of the Out Relief Department has been continued during the year pending general review of the position in due course.

There has again been a record of difficulty in obtaining sufficient accommodation for the chronic sick in Birmingham Infirmary and in Selly Oak Infirmary and the year has been one of considerable anxiety from this standpoint. It has been necessary, not infrequently, to extend the number of extra beds set up to an undesirable extent ; and even with such additional accommodation there has been unavoidable delay in the acceptance of patients referred by medical practitioners or relieving officers for institutional care.

INSTITUTIONAL PROVISION FOR THE CARE OF MENTAL DEFECTIVES

During the year 1937 ancillary premises to Coleshill Hall Institution, the Marston Green Division, were opened for the accommodation of mental defectives.

The accommodation provided consists of 493 beds, allocated as follows :

- 210 males (168 adults and 42 boys).
- 215 females (167 adults and 48 girls).
- 44 cot and chair cases of both sexes.
- 24 sick cases of both sexes.

REPORT ON MATERNITY AND CHILD WELFARE

By DR. ETHEL CASSIE,

Senior Assistant Medical Officer of Health for Maternity and Child Welfare

CHIEF STATISTICS, 1937

Birth-rate, 16·3 per 1,000. (16,978 live births.)

Illegitimate Birth-rate, 3·7 per cent. (628 illegitimate births.)

Infant Mortality Rate, 60 per 1,000 live births (1,016 deaths.)

Stillbirths, 35 per 1,000 live and stillbirths (609 stillbirths).

Neo-natal Mortality, 31 per 1,000 births (526 deaths). (Infant deaths in the first four weeks of life.)

Deaths from one to two years, 11·2 per 1,000 of the age population (171 deaths).

Deaths from two to five years, 3·7 per 1,000 of the age population (157 deaths).

Maternal Mortality in Childbirth, 2·96 per 1,000 live and stillbirths (52 deaths).

Child Population under five (estimated), 71,643.

GENERAL COMMENTS

Births

There has again been a small rise in the birth-rate, affecting the Central Wards and the Middle and Outer Ring of Wards. The illegitimate birth-rate has also, unfortunately, shown a substantial rise.

Infant and Child Mortality

The *infant mortality* has fallen from sixty-two in 1936 to sixty in 1937.

An increase of thirty-seven deaths occurred during the “ neo-natal ” period, under the age of one month, while there was a decrease of forty-two deaths between one and twelve months of age, as compared with the figures for 1936.

The *neo-natal death-rate* (31·0 per 1,000 live births) is higher than it was in 1936, when it was 29·8, and lower than the five years’ average of 1932 to 1936 (31·9).

The number of *stillbirths* is equivalent to thirty-five per 1,000 of the live and stillbirths. The total loss of life from stillbirths and neo-natal deaths amounts to 1,135, while the deaths of infants between the age of one month and twelve months total 490.

The stillbirth rate, neo-natal deaths and maternal mortality in child-birth have closely associated factors, and continue to show no material reduction.

The *death-rate among illegitimate infants* is lower than in the previous year.

An increase has occurred in the *death-rate of children from one to two years*. The rate from *two to five years* has also risen.

Maternal Mortality in Childbirth

In Birmingham the maternal mortality for the year shows a decrease as compared with 1936 (2·96 per 1,000 total births against 3·53), while the rate for England and Wales, as a whole, shows a reduction (3·11 against 3·65).

Puerperal Sepsis and Puerperal Pyrexia

Detailed information has been obtained in all notified cases. There has been no definite spread of infection in the practice either of midwives or of institutions.

Births

During 1937 there were 16,978 live births (8,655 males and 8,323 females) belonging to Birmingham, and 609 stillbirths, making a total of 17,587. The live births number 592 more than in the previous year, and were equal to a birth-rate of 16·3, against one of 15·8 in 1936. The birth-rates of the past thirty-seven years are given in Table I in the Appendix. It will be seen that except for fluctuations during the war period there was a steady decline in the rate from 31·4 in 1901 to 14·7 in 1933, but in 1934, 1935, 1936, and 1937 small increases were recorded.

The Birmingham birth-rate is among the higher rates in the list for the great towns, as will be seen from the figures below :

BIRTH-RATES IN LARGEST TOWNS

	Per 1,000.		Per 1,000.
London	13·4	Leeds.....	14·8
Glasgow	19·8	Edinburgh	15·8
<i>Birmingham</i>	16·3	Bristol	14·5
Liverpool	19·3	Hull	18·2
Manchester	14·3	Bradford	13·8
Sheffield	15·4		

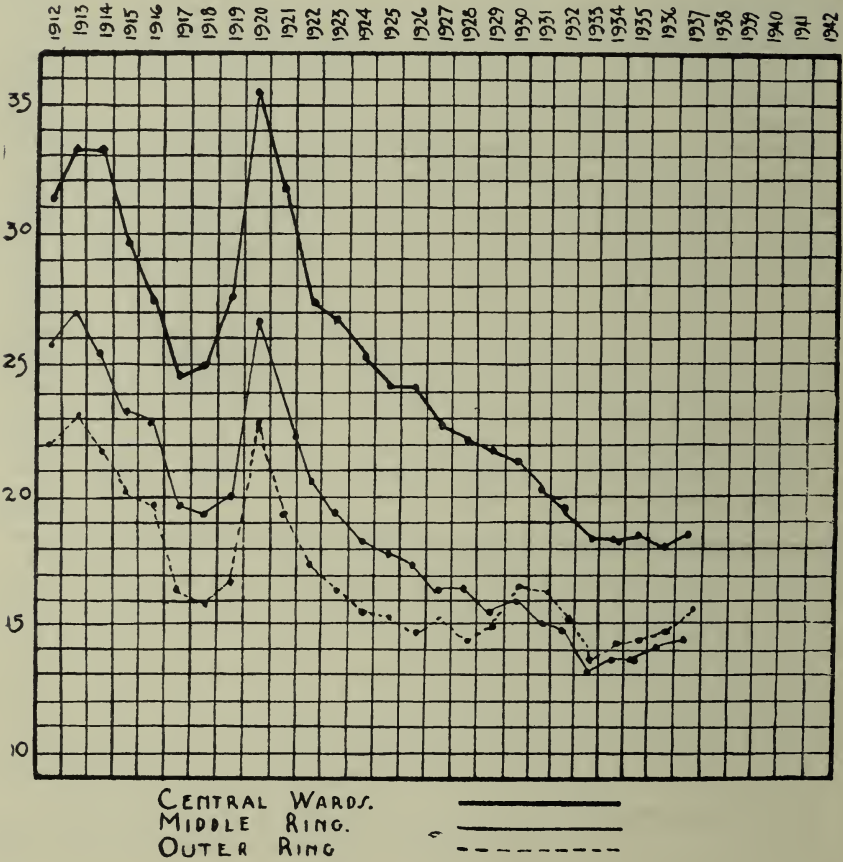
The birth-rate varied greatly in different parts of the city, as shown in the following table :

BIRTH-RATES IN WARDS

<i>Central Wards.</i>	<i>Middle Ring.</i>	<i>Outer Ring.</i>
St. Paul's..... 17·5	Lozells 15·2	Soho..... 11·8
St. Mary's 20·2	Aston 16·6	Sandwell 11·2
Duddeston and	Washwood Heath 12·8	Handsworth 12·9
Nechells 20·3	Saltley 14·2	Perry Barr 24·0
St. Bartholomew's 18·3	Small Heath 13·4	Erdington 14·1
St. Martin's and	Sparkbrook 16·8	Gravelly Hill 13·1
Deritend 18·6	Balsall Heath .. 15·1	Bromford..... 16·3
Market Hall 16·6	Edgbaston 9·4	Stechford..... 21·4
Ladywood 16·6	Rotton Park 15·0	Yardley 14·4
	All Saints 15·6	Acock's Green .. 14·0
		Hall Green 16·3
		Sparkhill 13·7
		Moseley and King's
		Heath 12·9
		Selly Oak 15·7
		King's Norton .. 15·0
		Northfield 19·3
		Harborne..... 14·3
1937..Average 18·3	1937..Average 14·4	1937..Average 15·3
1936..Average 18·0	1936..Average 14·2	1936..Average 14·8
1935..Average 18·4	1935..Average 13·6	1935..Average 14·3

The movements in the birth-rate in the three groups of wards are indicated in the diagram below :

BIRTH RATE IN GROUPS OF WARDS.



Illegitimate Births

During 1937 there were 628 illegitimate births belonging to Birmingham. Of these, 591 occurred in the city and thirty-seven in other places. The illegitimate births were in the proportion of 37·0 per 1,000 of the total live births, as against 33·7 for 1936.

The figures for the past ten years were as follows :

	<i>Illegitimate Births per 1,000 live births.</i>		<i>Illegitimate Births per 1,000 live births.</i>
1927	36·5	1932.....	32·9
1928	33·6	1933.....	36·8
1929	36·6	1934.....	36·6
1930	35·8	1935.....	33·3
1931	33·8	1936.....	33·7
		1937.....	37·0

Infant and Child Mortality

The deaths of infants under one year of age numbered 1,016, and were equal to an infant mortality rate of sixty per 1,000 births.

The infant mortality rates for a number of years are shown in the table below :

INFANT MORTALITY RATE

	<i>Bir- mingham.</i>	<i>England and Wales.</i>		<i>Bir- mingham.</i>	<i>England and Wales.</i>
1901-05 ..	157	138	1921-25 ..	80	76
1906-10 ..	131	117	1926-30 ..	70	68
1911-15 ..	126	110	1931-35 ..	67	62
1916-20 ..	94	90			
1928.....	65	65	1933.....	66	64
1929.....	79	74	1934.....	68	59
1930.....	60	60	1935.....	64	57
1931.....	71	66	1936.....	62	59
1932.....	67	65	1937.....	60	58

The infant mortality rates in Birmingham and ten of the largest British towns for 1926, 1936 and 1937 are shown in the sub-joined table :

	<i>Rate per 1,000 live births.</i>				<i>Rate per 1,000 live births.</i>		
	1926.	1936.	1937.		1926.	1936.	1937.
London	64	66	60	Leeds	87	65	67
Glasgow	104	109	104	Edinburgh ..	80	68	70
<i>Birmingham</i> .	70	62	60	Bristol	68	48	46
Liverpool	103	75	82	Hull	85	65	77
Manchester ..	83	77	76	Bradford	93	83	70
Sheffield	78	59	55				

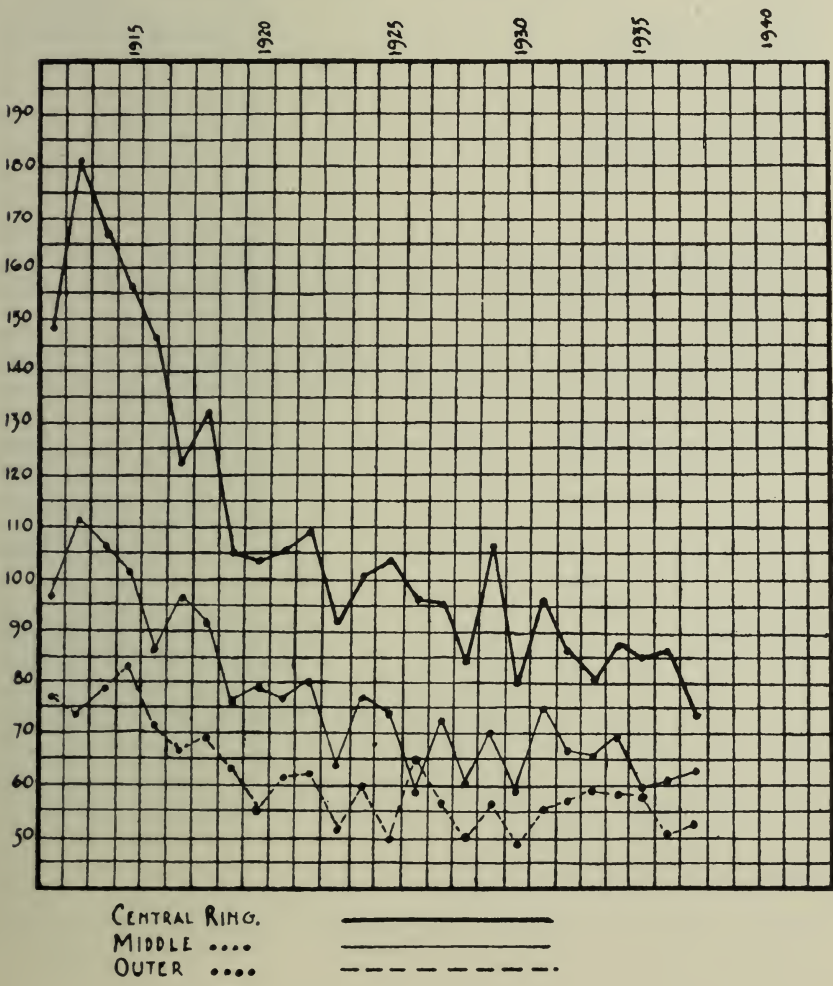
INFANT MORTALITY IN WARDS

The appended table shows the infant mortality rate in each of the wards of the city in 1937. The average mortality in the groups of wards ten years ago is given for comparison :

<i>Central Wards.</i>		<i>Middle Ring.</i>		<i>Outer Ring.</i>	
St. Paul's	117	Lozells	73	Soho	60
St. Mary's	86	Aston	84	Sandwell	52
Duddeston and		Washwood Heath	51	Handsworth	49
Nechells	60	Saltley	65	Perry Barr	58
St. Bartholomew's	71	Small Heath	55	Erdington	73
St. Martin's and		Sparkbrook	77	Gravelly Hill	71
Deritend	68	Balsall Heath....	58	Bromford	46
Market Hall	45	Edgbaston	52	Stechford	73
Ladywood	57	Rotton Park	61	Yardley	49
		All Saints	67	Acock's Green ..	55
				Hall Green	44
				Sparkhill	54
				Moseley and King's	
				Heath	40
				Selly Oak	55
				King's Norton ..	27
				Northfield	44
				Harborne	54
Average in 1937	72	Average in 1937	64	Average in 1937	53
Average in 1936	87	Average in 1936	62	Average in 1936	52
Average in 1935	85	Average in 1935	59	Average in 1935	58
Average in 1927	95	Average in 1927	73	Average in 1927	56

The following diagram shows the fall in infantile mortality in each of the three groups of wards during the past twenty-six years. It will be noted that the decrease has been much more marked in the central areas than in the other parts of the City, and that the range in the sectional rates last year was only from fifty-three to seventy-two, whereas in 1913 it was from seventy-four to 181. The approximation of the rates in the Middle and Outer Rings is, perhaps, associated with the fresh distribution of population arising from the re-housing operations of the City.

INFANT MORTALITY RATES.



INFANTILE MORTALITY DURING THE YEAR 1937: DEATHS FROM
STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE

<i>Cause of Death.</i>	<i>Weeks.</i>				<i>Total Deaths under 1 month</i>	<i>Months.</i>				<i>Total Deaths under 1 year.</i>
	0-	1-	2-	3-		1-	3-	6-	9-	
Measles	—	—	—	—	—	—	3	7	7	17
Scarlet Fever.....	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	3	8	3	1	15
Diphtheria and Croup.....	—	—	—	—	—	—	—	1	3	4
Influenza.....	1	—	—	1	2	2	2	4	4	14
Tuberculous Meningitis	—	—	—	—	—	—	1	4	2	7
Abdominal Tuberculosis	—	—	—	—	—	—	—	—	—	—
Other tuberculous diseases ..	—	—	—	—	—	—	3	1	1	5
Rickets	—	—	—	—	—	1	3	6	1	11
Syphilis	1	—	—	—	1	2	1	—	1	5
Cerebro-spinal Fever	—	—	—	—	—	—	1	2	1	4
Meningitis (not tuberculous)	—	1	—	—	1	2	1	5	1	10
Convulsions	—	1	—	—	1	—	—	—	1	2
Bronchitis	—	1	—	—	1	8	2	4	1	16
Pneumonia (all forms).....	2	2	7	6	17	39	41	35	19	151
Gastritis	—	—	—	—	—	1	1	—	—	2
Diarrhœa, Enteritis, etc. ..	1	1	—	3	5	27	30	13	6	81
Congenital malformations ..	35	16	10	4	65	22	11	4	6	108
Premature birth	271	12	14	13	310	23	—	1	—	334
Atrophy, Debility & Marasmus	6	1	—	2	9	1	3	2	—	15
Atelectasis	28	2	—	—	30	—	—	—	—	30
Injury at birth	54	3	—	—	57	1	—	—	—	58
Neglect (under 3 months) ..	—	—	—	—	—	—	—	—	—	—
Suffocation (Overlying)	—	—	—	—	—	1	—	—	—	1
Other causes	14	5	7	1	27	33	23	27	16	126
All causes	413	45	38	30	526	166	134	119	71	1016
Rate per 1,000 live births....	24·3	2·7	2·2	1·8	31·0	9·8	7·9	7·0	4·2	60

INFANTS' DEATHS FROM "OTHER CAUSES"

(See preceding Table)

	1937.		1936.		1935.	
	<i>Under 1 month.</i>	<i>Total.</i>	<i>Under 1 month.</i>	<i>Total.</i>	<i>Under 1 month.</i>	<i>Total.</i>
Acute Otitis Media	—	36	—	32	—	28
Acute Mastoiditis	1	18	1	22	—	2
Acute Septic Infections ..	3	14	1	19	4	22
New growths	—	1	—	1	—	—
Accidents	1	4	3	14	—	5
Congenital diseases	18	21	18	23	13	18
Other conditions	4	32	2	27	9	46
TOTALS	27	126	25	138	26	121

The next table shows the number of infant deaths from the more prominent causes of death during the last five years.

INFANT DEATHS FROM DIFFERENT CAUSES

	1937.	1936.	1935.	1934.	1933.
Measles	17	8	11	4	18
Whooping Cough	15	66	26	52	14
Influenza	14	3	5	6	8
Tuberculosis	12	12	12	7	14
Convulsions	2	3	4	4	10
Bronchitis	16	14	9	16	36
Pneumonia	151	149	136	144	185
Diarrhoea and Enteritis	81	82	115	127	106
Suffocation (overlying)	1	3	4	—	3
Congenital Malformation.....	108	110	114	97	113
Premature birth	334	292	330	310	295
Injury at birth	58	61	56	61	36
Atrophy, Debility and Marasmus.....	15	20	18	20	20
Other causes	192	198	184	213	140
TOTAL	1016	1021	1024	1061	998

Infant Mortality and Illegitimacy

The following figures show the relative mortality among legitimate and illegitimate infants for the past year :

	<i>No. of Births.</i>	<i>Deaths under 1 year.</i>	<i>Infant mortality per 1,000.</i>
Legitimate	16350	959	59
Illegitimate	628	57	91

The infant mortality rates during recent years were as follows :

	<i>Infant Mortality Rates per 1,000 Births.</i>			
	<i>Legitimate.</i>	<i>Average.</i>	<i>Illegitimate.</i>	<i>Average.</i>
1921	81	78	135	149
1922	82		178	
1923	69		151	
1924	81		142	
1925	76		139	
1926	70	68	150	128
1927	73		135	
1928	63		111	
1929	77		128	
1930	58		117	
1931	70	66	122	113
1932	65		125	
1933	64		119	
1934	66		106	
1935	63		91	
1936	61		105	
1937	59		91	

Neo-natal Mortality

During the last twenty-six years there has been a decline in the mortality rate amongst children under four weeks of age, as will be seen from the table below. The figure for the individual year 1937, while higher than that for 1936, is lower than that for four out of the five preceding years :

	<i>Birmingham.</i>		<i>England and Wales.</i>	
	<i>Rate per 1,000 live births.</i>	<i>Average.</i>	<i>Rate per 1,000 live births.</i>	<i>Average.</i>
1912	42·1	} 40·6	38	} 38
1913	41·0		39	
1914	42·3		39	
1915	37·0		38	
1916	35·8	} 36·3	37	} 37
1917	38·3		37	
1918	35·7		36	
1919	37·1		40	
1920	34·4	} 33·5	35	} 33
1921	35·0		35	
1922	34·4		34	
1923	31·1		32	
1924	34·6	} 31·0	33	} 33
1925	32·2		32	
1926	31·1		32	
1927	33·3		32	
1928	29·7	} 32·3	31	} 31
1929	32·3		33	
1930	28·7		31	
1931	32·2		32	
1932	32·7	} 30	32	} 30
1933	30·8		32	
1934	32·6		31	
1935	33·4		30	
1936	29·8		30	
1937	31·0		—	

Stillbirths

The net number of stillbirths for the year was 609, equal to thirty-five per 1,000 of the live and stillbirths, as compared with the rate of thirty-six in 1936.

The following table shows the number of stillbirths over a number of years :

	<i>Stillbirths.</i>	<i>Average.</i>	<i>Percentage of Total Live Births.</i>	<i>Average.</i>
1912	667	710	3.0	3.2
1913	679		2.9	
1914	762		3.3	
1915	732		3.5	
1916	729	711	3.5	3.5
1917	580		3.3	
1918	590		3.5	
1919	744		3.8	
1920	911		3.6	
1921	804	649	3.6	3.3
1922	660		3.3	
1923	629		3.3	
1924	544		3.0	
1925	609		3.4	
1926	585	596	3.3	3.5
1927	521		3.0	
1928	595		3.5	
1929	590		3.5	
1930	688		4.0	
1931	697	604	4.1	3.7
1932	603		3.6	
1933	591		3.9	
1934	580		3.7	
1935	548		3.4	
1936	590		3.6	
1937	609		3.5	

Stillbirths and Neo-natal Deaths

There were 598 *stillbirths* during 1937, plus eleven further cases allotted to Birmingham by the Registrar General, but not occurring within the city.

There were 514 cases of *neo-natal death*—i.e., death within the first four weeks of life. Considerably more than half of these deaths occurred within the first twenty-four hours, indicating again the close connection in the majority of cases between neo-natal death and the circumstances of the birth.

The age at death is shown in the following table :

24 hours or less	297
2-6 days old	104
7 days or more.....	113
TOTAL	514

On account of the close relation between stillbirths and the majority of neo-natal deaths, the two conditions are considered together in the following table :

	<i>Still- births</i> (598).	<i>Neo-natal deaths</i> (514).
<i>Place of Birth :</i>		
At home	299	313
Hospital or Institution	299	197
No information	—	4
<i>Gestation :</i>		
Premature.....	210	297
Full-term	324	199
No information	64	18
<i>Cause of Death :</i>		
Ante-natal causes	247	130
Intra-natal causes	222	90
Fœtal abnormalities	75	68
Prematurity with no other apparent cause.....	31	160
No information	23	—
Post-natal conditions	—	66
Number of cases in which mother attended ante-natal clinic at Welfare Centre	243=41%	201=39%

The causes of death listed under the various headings have been classified in the same way as in previous years.

The figure on the last line of the table relating to the percentage of mothers attending the ante-natal clinics should be compared with the percentage of the total known maternity cases who visited the ante-natal clinics. This number is 66 per cent.

Deaths of Children between 1 and 5 years old

These are set out in the table below, distinguishing those under two years from those over two :

	1 to 2 years old.				2 to 5 years old.			
	1937.	1936.	1935.	1934.	1937.	1936.	1935.	1934.
Measles	31	14	22	10	18	12	13	4
Whooping Cough	6	20	14	37	4	19	24	24
Diphtheria	9	1	3	3	19	22	19	25
Scarlet Fever.....	2	1	—	4	1	1	5	5
Influenza.....	5	3	2	2	3	—	1	3
Tuberculosis	10	9	8	7	20	12	16	20
Nervous diseases	21	15	13	14	12	9	12	12
Bronchitis and Pneumonia.	52	37	38	53	25	24	20	32
Diarrhœa and Enteritis ..	6	6	8	10	2	1	5	6
Other digestive diseases ..	2	6	4	7	10	10	10	12
Accidental deaths	11	3	3	6	20	16	13	23
All other causes	16	16	18	18	23	19	30	18
TOTALS	171	131	133	171	157	145	168	184

The following table shows the deaths and death-rates among children between one and five years compared with the average figures for previous years :

	1-2 years : Average.		2-5 years : Average.	
	Deaths.	Death-rate per 1,000.	Deaths.	Death-rate per 1,000.
1912-15	821	45.9	697	12.2
1916-20	579	32.2	568	9.9
1921-25	451	23.7	323	5.8
1926-30	309	19.3	233	4.9
1931-35	194	12.9	181	3.8
1936.....	131	8.8	145	3.3
1937.....	171	11.2	157	3.7

The figures for 1937 in respect of these two groups of young children have thus not maintained the low level reached in 1936 ; nevertheless, they are lower than the average for the years 1931-35.

Maternal Mortality in Childbirth

The deaths of women classed to pregnancy and child-bearing in Birmingham during 1937 numbered fifty-two. The number of live births was 16,978, giving a maternal mortality rate per 1,000 births of 3·07.

The maternal mortality in previous years is shown in the table below :

	Deaths from.		Rate per 1,000 Live Births (total).	
	Puerperal Fever.	Other Puerperal Causes.	Birmingham.	England and Wales.
1911....	36	48	3·82	3·87
1912....	27	45	3·25	3·98
1913....	44	48	3·86	3·96
1914....	33	41	3·19	4·17
1915....	35	38	3·44	4·18
1916....	31	40	3·44	4·12
1917....	26	20	2·60	3·89
1918....	29	22	3·03	3·79
1919....	23	28	2·64	4·37
1920....	51	39	3·59	4·33
1921....	26	37	2·84	3·92
1922....	25	35	3·02	3·81
1923....	34	33	3·51	3·82
1924....	37	35	3·91	3·90
1925....	35	39	4·15	4·08
1926....	41	33	4·13	4·12
1927....	25	37	3·59	4·11
1928....	32	34	3·83	4·42
1929....	26	41	3·99	4·33
1930....	27	32	3·39	4·40
1931....	28	37	3·81	4·11
1932....	28	34	3·73	4·21
1933....	25	31	3·72	4·51
1934....	29	31	3·83	4·60
1935....	23	33	3·52	4·10
1936....	25	35	3·67	3·81
1937....	13	39	3·07	3·23

The rates calculated on live and stillbirths for 1937 were :

Birmingham	2·96
England and Wales	3·11

The causes of death as given on the death certificates may be classified as follows :

Puerperal Sepsis (after confinement or abortion)	13
Puerperal Hæmorrhage	8
Albuminuria and Convulsions	9
Other toxæmias of pregnancy	7
Accidents of pregnancy (abortion, ectopic gestation, etc.).....	5
Embolism	1
Other causes	9

COMPARATIVE MATERNAL MORTALITY IN ELEVEN LARGEST TOWNS

	<i>Deaths per 1,000 Live Births from</i>		
	<i>Puerperal Sepsis.</i>	<i>Other Puerperal Causes.</i>	<i>Total.</i>
London	0·84	1·45	2·29
Glasgow	2·07	2·89	4·96
Birmingham	0·74	2·22	2·96
Liverpool	0·60	1·79	2·39
Manchester	1·39	2·98	4·37
Sheffield	1·63	1·88	3·51
Leeds	0·82	1·51	2·33
Edinburgh	1·20	3·50	4·70
Bristol	1·17	2·50	3·67
Hull	0·86	1·73	2·59
Bradford	1·00	1·75	2·75

Maternal Mortality Enquiry

At the request of the Ministry of Health a medical enquiry has been made in the case of every maternal death in childbirth during each year since 1929. The information so obtained, direct from doctors, midwives and hospitals, makes it possible to classify the deaths more accurately than from the consideration of the death certificates only.

The maternal deaths in 1937 have been tabulated as follows :

A.—Deaths due to pregnancy and childbirth.....	50
B.—Deaths due to associated conditions	20
TOTAL	70

A.—DEATHS DUE TO PREGNANCY AND CHILDBIRTH

(1) NOT ASSOCIATED WITH A NOTIFIABLE BIRTH.		
(a) <i>Abortion</i> :		
Septic	7	}
Non-septic	1	
	8	
<hr/>		
Criminal	3	}
Doubtfully criminal	2	
Apparently spontaneous	2	
Attempted only	1	
	8	
	—	
(b) <i>Ectopic Gestation</i>		3
TOTAL		11
<hr/>		
(2) ASSOCIATED WITH A NOTIFIABLE BIRTH.		
(a) <i>Sepsis</i> :		
Normal labour	2	}
Abnormal labour	4	
(b) <i>Toxæmia</i> :		
Eclamptic	5	}
Non-eclamptic	11	
(c) <i>Hæmorrhage</i> (non-toxæmic) :		
Ante-partum	3	}
Post-partum	4	
(d) <i>Obstetric Shock</i> :		
Normal labour	—	}
Abnormal or difficult labour	5	
(e) <i>Accidents of Labour</i> :		
Rupture of uterus	2	}
Inversion of uterus	2	
(f) <i>Embolism</i>		—
(g) <i>Other Causes</i> :		
Paralytic ileus after cæsarian section		1
TOTAL		39

B.—DEATHS DUE TO ASSOCIATED CAUSES

Pneumonia	7
Heart disease	8
Heart disease and pneumonia	2
Puerperal mania	1
Tuberculosis	1
Mesenteric thrombosis	1
<hr/>	
TOTAL	20

Estimation of Avoidable Factors

A review of the circumstances of every case of maternal death makes it possible to estimate whether or not there was any avoidable factor ; and in this respect the cases have been classified according to the following table. Two or more factors may have been present in any one case.

Abortions and ectopic gestations are not included in this table, but cases of death due to associated conditions are included.

TABLE I

	<i>Sepsis.</i> (6)	<i>Toxæmia.</i> (16)	<i>Hæmorrhage</i> (7)	<i>Other Obstetric Causes.</i> (10)	<i>Associated Conditions</i> (20)
Lack or inadequacy of A.N. care	2	7	1	2	2
Lack or inadequacy of obstetric facilities	3	—	—	6	—
Lack or inadequacy of specialist or hospital treatment ..	1	*6	1	—	—
Lack of co-operation of patient or her friends	—	4	2	—	4
Safety only by avoidance of pregnancy..	—	—	—	—	†3
No avoidable factor..	—	3	3	2	11

*Earlier removal to hospital.

†Two cases of heart disease and one of pulmonary tuberculosis.

Total number of cases in which <i>avoidable factor</i> present	37 = (63%)
Total number of cases in which death apparently inevitable . . .	19
Total number of cases in which safety could only have been attained by avoiding pregnancy	3
TOTAL	59

A table showing various conditions which may influence maternal mortality is given on page 50, Table II.

Comparison with Previous Years

A comparison of the figures in the principal groups with those of previous years is shown hereunder :

TABLE III

	<i>Due to Pregnancy and Child-birth.</i>						<i>Due to Associated Conditions.</i>
	<i>Abortion.</i>	<i>Sepsis.</i>	<i>Toxæmia.</i>	<i>Hæmorrhage.</i>	<i>Other Causes.</i>	<i>Total.</i>	
1931....	9	21	7	11	11	59	21
1932....	9	26	8	9	15	67	9
1933....	14	15	9	4	19	61	7
1934....	14	18	6	7	11	56	19
1935....	7	20	12	6	10	55	14
1936....	9	17	10	10	15	61	17
1937....	8	6	16	7	13	50	20

It is encouraging to note a downward tendency in the figure for deaths due to sepsis. This figure shows a particularly marked drop this year. Of the six cases which occurred in 1937, four followed abnormal labour, and of the two which followed normal labour, in each case there was a strong presumption of exogenous infection. In one of these the patient was attended by a midwife who developed a severe attack of influenza on the evening of the day on which she delivered the patient. In the other case the patient's mother was found to have a septic finger which had recently been incised, and she had been assisting in the nursing of her daughter.

The deaths due to toxæmia show a tendency to rise. Reference to Table II shows that this cannot be regarded as unavoidable since in the majority of these cases there was either lack of adequate ante-natal care, or delay in instituting hospital treatment.

TABLE II. MATERNAL DEATHS

	A.—Due to Pregnancy and Childbirth.					B.—Due to Associated Conditions.
	Abortion.	Sepsis.	Toxæmia.	Hæmorrhage.	Other Causes including Ectopics.	Total.
Number of cases	8	6	16	7	13	50
<i>Parity:</i>						
Primipara	2	3	8	1	7	21
Multip., 5 or less	6	1	6	4	5	22
Multip., 6 or more	—	2	2	2	1	7
<i>Age Groups:</i>						
Under 20	—	—	—	—	—	—
20-30	3	2	6	2	8	21
31-40	5	3	9	3	4	24
41 and over	—	1	1	2	1	5
<i>Home Conditions:</i>						
Well-to-do	—	—	1	—	4	5
Comfortable	6	3	12	6	9	36
Poor	2	2	2	1	—	7
Destitute	—	1	1	—	—	2
<i>Legitimacy:</i>						
Legitimate	6	6	16	7	13	48
Illegitimate	2	—	—	—	—	2
<i>Ante-Natal Care:</i>						
Adequate	—	3	5	4	11	23
Inadequate	—	3	8	2	1	14
Nil	8	—	3	1	1	13
<i>Attendance at Delivery:</i>						
Midwife	—	2	—	3	1	6
Doctor (booked)	—	—	2	—	3	5
Doctor (not booked)	—	—	1	1	—	2
Booked Hospital or Maternity Home ..	—	2	1	2	4	9
Emergency Hospital	7	2	8	1	2	20
No skilled attention	—	—	—	—	—	—
Undelivered	1	—	4	—	*3	8

*Ectopics.

Puerperal Sepsis

From October 1st, 1937, puerperal fever ceased to be notifiable as such, and all febrile conditions following child birth or abortion are now classed as puerperal pyrexia.

The following table shows the number of cases of puerperal fever and puerperal pyrexia during 1937 and the preceding four years.

The "out of city" cases are those not normally resident in Birmingham, but coming into the city for confinement.

	1933.	1934.	1935.	1936.	1937.
Total Puerperal Fever and Pyrexia	240	329	276	264	315
Puerperal Fever	75	113	104	96	*61
Puerperal Pyrexia	165	216	172	168	254
Out-of-city cases	15	16	16	20	37
Birmingham cases	225	313	260	244	278

*Up to September 30th.

Detailed information is obtained in nearly all the Birmingham cases, and is shown in the following tables :

	1933.	1934.	1935.	1936.	1937.
Number of cases investigated.....	219	313	259	244	278
Primipara	113	126	125	102	132
Multipara	97	166	103	106	108
Parity not stated	9	21	31	36	38
Abortion	33	43	40	28	34
Transferred to hospital for treatment..	118	157	134	130	126
Consultant called in (P.H. Dept. Scheme)	23	25	15	18	26
Deaths { (a) Childbirth	13	11	17	15	8
(b) Abortion	7	9	4	4	3

The number of deaths in notified pyrexia cases does not necessarily mean that all of these deaths were actually due to sepsis. In 1937 only six deaths were ascribed to sepsis following childbirth, the remaining two were both due to ruptured uterus associated with pyrexia.

The *ante-natal care* in the 278 Birmingham cases in 1937 was as follows :

Hospital	74	
Private Doctor	62	
Welfare Centre	58	} 64
Hospital and Welfare Centre	3	
Private Doctor and Welfare Centre.....	2	
Nursing Home and Welfare Centre	1	
Nursing Home		14
Midwife.....		1
No ante-natal care.....		16
No information		47
TOTAL		278

It will be seen that sixty-four of these cases (i.e., 23 per cent.) attended the ante-natal clinics at the welfare centres. The percentage of all maternity cases attending the clinics during the year was 66 per cent.

In the 278 Birmingham cases the following *complications of labour* were noted (frequently more than one complication per case) :

Perineal and/or vaginal stitches	66
Instrumental delivery	56
Internal version	2
Breech delivery	6
Cæsarean section	17
Abortion	34
Post-partum hæmorrhage	21
Ante-partum hæmorrhage	3
Placenta prævia	2
Manual removal of placenta	18
Retained products	15
TOTAL	240

No complication of labour was noted in 109 of the 278 cases.

Ophthalmia Neonatorum

962 cases of discharging eyes were notified to this Department during 1937. The great majority of these were not cases of ophthalmia neonatorum due to gonococci, but were reactions following prophylactic treatment, or mild catarrhs. Forty-four cases were admitted to the Eye Hospital, as against seventy-three in 1936.

There were no cases of blindness this year, and only one case recorded as defective sight, and in this case the defect was due to a congenital abnormality of the eyes and not to inflammation.

The Health Visitors and Supervisors of Midwives paid 2,569 effective visits to notified cases.

Pemphigus Neonatorum

Seven cases of pemphigus neonatorum were reported during 1937. Six were removed to hospital.

MATERNITY AND CHILD WELFARE SERVICE

Health Visitors' Training Course

The fifteenth course of training for the Health Visitors' Certificate was held from September 6th, 1937, to March 15th, 1938. Twenty-nine candidates entered for the course, eighteen taking the Birmingham Assisted Course. Two students were entered by the Sussex County Nursing Association, two by the Chichester District Nursing Association, and the remaining seven were independent candidates from various parts of the country. In addition, one student on leave from missionary work abroad attended tutorials during February and March, giving part-time service in the Department when not at tutorials.

Twenty-nine students sat for the examination of the Royal Sanitary Institute in Birmingham on March 31st, April 1st and 2nd. One student was unable to take the examination owing to a period of sick leave, but is entered for the examination in Manchester in April. Twenty-five, or 86 per cent, were successful and were awarded the Health Visitors' Certificate. The average percentage of passes for the previous fourteen examinations was 84 per cent.

Of the eleven independent students, six have returned to Queen's Nursing Associations, one has received an appointment as a Health Visitor at Exeter, and two are doing relief work in the Department. Of the remaining two who are still awaiting appointments, one failed to pass the examination.

The course has followed the lines of previous years. Special work included Child Life Protection, Venereal Disease Clinics, the Almoner's Department at the General Hospital, and attendance at Public Assistance Offices. In addition to the usual visits of observation, special visits were paid to the Orthoptic Department of the Eye Hospital, where modern methods of treating squint were demonstrated, and to the Children's Hospital. Visits were also paid to the Out-patient Department of the Royal Cripples' Hospital, where a most instructive lecture and demonstration on congenital deformities was given, and to the Babies' Hospital at Canwell Hall.

Maternity and Child Welfare Staff

<i>Medical Officers :</i>	WHOLE-TIME	.	.	.	15
	PART-TIME	.	.	.	25
<i>Dentists :</i>	WHOLE-TIME	.	.	.	1
	PART-TIME	.	.	.	1
<i>Number of Health Visitors</i>	.	.	.	.	100
<i>(Attached to Child Welfare Centres, 91 ; Special Visitors, mainly visiting non-notifiable infectious disease, 9)</i>					
<i>Superintendent of Health Visitors</i>	.	.	.	.	1
<i>Assistant Superintendents of Health Visitors</i>	.	.	.	.	2
<i>Supervisors of Midwives</i>	.	.	.	.	2
<i>Tutor for Training Course</i>	.	.	.	.	1
<i>Special Workers</i>	.	.	.	.	3
<i>(Foster Mother Scheme, Unmarried Mothers, Home Helps)</i>					
<i>Dental Nurses</i>	.	.	.	.	2
<i>Immunisation Nurses</i>	.	.	.	.	2
<i>Remedial Gymnast</i>	.	.	.	.	1
<i>Class Mistresses :</i>	Cookery	.	.	.	5
	Sewing	.	.	.	13
<i>City Midwives</i>	.	.	.	.	99

Health Visiting

The Health Visitors undertake home visiting for children under the age of five, ante-natal home visiting, and also the visiting required for non-notifiable infectious disease, and ophthalmia neonatorum. In order to cope with the outbreaks of infection in different localities nine visitors are employed for specialised work in the latter connection, the general health visitors dealing with sporadic cases in their localities.

The Health Visitors carry out the Centre work in addition to home visiting.

Total visits to children under five years.....	308691
Total visits to expectant mothers	19553
Other visits	23446
All visits	351690

Child Welfare Centres

A.—Number of centres provided and maintained by the City Council	31
B.—Number of centres provided and maintained by a Voluntary Association.....	1
C.—Total number of attendances at ordinary consultations at all centres during the year :	
(1) By children under one year of age.....	152,021
(2) By children between the ages of one and five years....	82,673
D.—Total number of children who attended ordinary consultations for the <i>first time</i> during the year :	
(1) Children under one year of age.....	13,326
(i.e., 78 per cent of births)	
(2) Children between the ages of one and five years.....	3,160
E.—Total number of children who were in attendance at the centres throughout the year :	
(1) Children under one year of age	11,118
(2) Children between the age of one and five years.....	25,189
Percentage of children between one and five years (total in city approximately 58,000) attending Child Welfare Centres (E) (2).....	43
Number of fresh children attending special medical inspection clinics for children two to five years (with 22,071 attendances)	7,253

In 1937 the Carnegie Institute had the highest number of individual children registered as attending the children's consultation, viz., 2,121 followed by Acock's Green with 1,840, Monument Road with 1,689, King-standing with 1,635, and Wright Street with 1,614.

A new Centre was opened during the year at Tennal Road, Harborne. There was a well-marked increase in the attendances at the consultations for mothers and children.

The various clinics at the child welfare centres have been well attended and the educational work has reached a high standard. A table is given showing the increase in the centre work during the last sixteen years. The increase in attendances at the clinics is remarkable, particularly in relation to the work for expectant mothers. The work for "toddlers" has been greatly extended, and is shown in the special medical inspections. The increase in the educational work is notable. The actual number of births recorded is 2,605 less than in 1921, which was a "peak" year, following the war.

ATTENDANCES AT CHILD WELFARE CENTRES DURING 1921 AND 1937

	1921.	1937.
<i>Number of Centres</i>	21	32
<i>Infants and Children :</i>		
Births reported	19360	16755
Primary visits	18718.	16259
Re-visits (infants and children)	169482	290822
Total visits and re-visits	188200	308691
<i>Mothers :</i>		
Primary visits	3291	*1649
Re-visits	6425	*17904
Total visits and re-visits	9716	*19553
<i>Children's Consultations :</i>		
Number held	2610	3680
Fresh children attending	14988	16486
Total attendances	130321	212623
Number seen by doctor	58910	85999
<i>Special Medical Inspections (1½-5 years) :</i>		
Number held	—	1314
Total attendances	—	22071
<i>Mothers' Consultations (Ante-natal) :</i>		
Number held	824	2510
Fresh mothers attending	4683	10798
Total attendances	10380	43494
<i>Attendance at :</i>		
Sewing classes	9335	17069
Cookery classes	1645	1716
Health talks	20685	65888

*Different method of calculation now in force.

MATERNITY AND CHILD WELFARE CENTRES, 1937

CENTRES.	Infants and Children.				Children's Consultations.						Special Medical Inspection (1½ to 5 years).			Mothers' Consultations. (Ante-Natal).			
	Births Reported.	Primary Visits.	Re-visits.	Total Visits.	Mothers (Ante-Natal Visits).	Number Held.	Fresh Children Attending.	Total Attendances.	Average per Consultation.	Number seen by Doctor.	Number Held.	Total Attendances.	Average per Consultation.	Number Held.	Fresh Mothers Attending.	Total Attendances.	Average per Consultation.
ACOCK'S GREEN	582	538	13466	14062	1049	146	751	10443	72	3643	75	1477	20	97	426	2007	21
BILLESLEY	467	450	8573	9056	822	109	603	6938	63	2603	58	975	17	48	253	832	17
BLOMSBURY STREET	675	653	12561	13345	892	146	664	7451	51	3535	48	711	15	145	566	2228	15
BROMFORD	380	360	6799	7200	322	96	275	4871	55	2095	49	1016	21	55	271	1274	23
CARNEGIE INSTITUTE	878	883	13414	14489	1062	241	994	13360	55	5854	48	728	15	147	603	2468	17
EDINGTON	611	603	7685	8324	556	146	547	10863	74	3369	49	877	18	95	314	1649	17
FLOODGATE STREET	355	355	6859	7287	496	96	341	4540	47	2408	12	138	12	49	230	831	17
GREET	379	369	6846	7265	454	49	279	2543	52	1167	12	220	18	49	191	985	20
GLOBE FARM	656	634	13471	14140	977	98	539	6791	70	2645	48	860	18	97	347	1257	13
HANDSWORTH	450	422	7138	7596	300	97	380	4821	50	2062	48	791	16	59	229	1077	18
HARBORNE	358	366	4095	4468	278	96	315	4209	44	1739	49	821	17	45	167	735	16
HAY MILLS	682	694	10822	11579	694	109	606	7392	68	2622	49	773	16	79	302	1248	16
HOPE STREET	788	743	13735	14599	806	109	617	6550	60	2491	48	778	15	49	126	589	12
IRVING STREET	364	364	8206	8622	298	97	392	6420	66	2370	12	178	15	20	89	333	15
KETTLEHOUSE	315	277	6491	6798	579	97	514	5227	54	2030	49	991	20	89	333	1296	15
KING'S HEATH	497	424	4613	5040	285	98	406	5225	53	2030	12	152	13	58	224	977	17
KINGSTANDING	589	576	14068	14687	1215	146	737	8772	60	3572	55	867	16	98	436	1908	19
LANCASTER STREET	595	615	11634	12314	760	146	662	7886	54	3051	49	673	14	96	528	1787	19
LANDOWNE STREET	553	563	10121	10728	662	98	306	4631	47	2261	48	718	15	55	269	1142	21
MONUMENT ROAD	748	753	15269	16100	896	197	818	10515	53	3967	49	712	15	151	642	2687	18
NORTHFIELD	500	510	8606	9140	597	98	519	7298	74	2578	49	823	17	70	313	1430	20
SEILLY OAK	351	349	5083	5447	392	96	352	5141	54	2315	12	154	13	49	169	863	18
STEECHFORD	327	337	6298	6661	482	97	411	5192	54	2288	48	980	20	63	220	1051	17
STIRCHLEY	649	581	8825	9427	515	98	494	5460	56	2323	48	762	16	60	262	1076	18
STRAITFORD ROAD	617	561	11760	12387	984	97	595	6282	68	2147	49	745	15	95	428	1700	18
SUTTON STREET	714	707	11957	12741	874	194	769	10077	82	4199	49	851	17	96	628	1902	20
TENNAL ROAD	27	24	87	111	9	2	34	45	23	40	—	—	—	2	—	3	—
TRINITY ROAD	505	494	5907	6433	394	146	486	7952	54	3194	48	816	17	98	366	1464	15
WALSALL ROAD	514	489	6632	7150	601	97	514	6379	66	2424	48	746	16	49	184	910	19
WASHWOOD HEATH	419	432	6844	7305	182	98	381	6036	62	2071	48	891	19	75	301	1222	16
WEOLEY CASTLE	339	320	8450	8784	585	98	351	4981	51	2223	48	756	16	49	218	852	17
WRIGHT STREET	871	813	14507	15406	926	142	830	8337	59	4113	49	849	17	122	551	2243	18
TOTALS	16755	16259	290822	308691	19553	3680	16486	212623	58	85999	1314	22071	17	2468	10522	43218	17

INDIVIDUAL CHILDREN ATTENDING CENTRES IN 1937

Acock's Green	1840	Lansdowne Street.....	968
Billesley	1261	Monument Road	1689
Bloomsbury Street	1295	Northfield	1070
Bromford	921	Plowden Road (Glebe Farm) ..	593
Carnegie Institute.....	2121	Selly Oak	728
Erdington	1288	Stechford	1016
Floodgate Street	388	Stirchley	1210
Greet	1195	Stratford Road	1439
Handsworth	859	Sutton Street.....	1580
Harborne	599	Tennal Road	34
Hay Mills	1336	Trinity Road.....	1589
Hope Street	1402	Walsall Road.....	1012
Irving Street	723	Washwood Heath.....	913
Kettlehouse	1067	Weoley Castle	804
King's Heath.....	785	Wright Street	1614
Kingstanding	1635		
Lancaster Street	1333	TOTAL	36307
Under 1 year		11118	
Over 1 year.....		25189	

Medical Inspection of Children from 2 to 5 years

Special sessions are devoted to the medical examination of children from two to five years at Child Welfare Centres. The number of such sessions during the year was 1,313, and the total attendances were 22,071, giving an average attendance of seventeen.

The total number of children attending during the year was 11,748, an increase of 1,915 over the previous year. Children are asked to return every quarter for examination, and it is hoped eventually to cover almost all the children in this age group. It must be understood that children of this age group also attend the ordinary children's consultations at the Child Welfare Centres and are regularly visited at home.

The "defects" noted at the special medical inspections have been classified as shown below. Of the 11,748 children examined, 7,160 were suffering from one or more "defects"—i.e., 61 per cent, a high proportion, which emphasises the need for such special examinations. No less than 14·1 per cent of the children examined suffered from acute illness during the year.

In considering individual groups some allowance must be made for the individual medical officer's point of view in relation to the conditions found. For instance, when a heart murmur is found, certain medical officers may classify it as congenital, others as rheumatic, and others regard it as secondary to anæmia. In relation to rickety deformations, certain medical officers are interested in these, and note them more particularly than others. It may be taken, however, that no gross defect is omitted from the record, though minor defects may not have been noted in a proportion of the children. This divergence of standard makes the observation of environmental factors of little value, so "unsuitable

clothing" and "lack of rest" only are included in the table. It is satisfactory that so few cases of the former are noted.

In practically all cases some treatment was obtained where required, but it was not always continued as long as appeared advisable.

TODDLERS' MEDICAL INSPECTION, 1937

Number of children who attended Medical Inspection Clinics during 1937	11748
Total number of attendances	22071
Number of these <i>children</i> noted as suffering from one or more of the defects or diseases in the attached list. (N.B.— <i>Not</i> number of defects)	7160
Number of children suffering from environmental conditions	4687
Number of children noted as having had an acute illness during 1937—e.g., pneumonia, infectious diseases, etc.	1665
<i>Eyes</i> (defect or disease) :	
Squint	250
Inflammatory conditions—e.g., conjunctivitis, corneal ulcer, blepharitis	196
Other eye conditions—e.g., cataract, blindness	7
<i>Skin</i> :	
Eczema	122
Purulent conditions—e.g., impetigo, septic spots, folliculitis, boils	339
<i>Ear, Nose and Throat</i> :	
Otorrhœa	285
Deafness	30
Enlarged or diseased tonsils and/or adenoids.....	2556
Nasal obstruction and/or mouth breathing.....	437
<i>Teeth</i> :	
Carious or defective	2300
<i>Glands</i> :	
Enlarged or palpable submaxillary or cervical glands.....	1360
<i>Heart</i> :	
Congenital heart disease (when definitely diagnosed).....	60
Rheumatic heart disease (when definitely diagnosed).....	23
<i>Anæmia</i>	359
<i>Lungs</i> :	
Any abnormality, including bronchitis, bronchiectasis, fibrosis, unresolved pneumonia, rhonchi, rales, dullness, etc., but not including cases of "cough" with no noted physical signs in lungs	521
<i>Rickets</i> :	
Active rickets (when definitely diagnosed as such).....	148
Rachitic deformities—e.g., bow legs, knock knee.....	1475
<i>Other Deformities</i> :	
Flat foot, kyphosis, scoliosis, talipes, torticollis, dislocated hip, pigeon chest, any other deformity	769
<i>Mentality</i> :	
Backwardness from any cause	127
<i>Speech</i> :	
Backward or defective	294
<i>Other Defects</i>	1115
<i>Environmental Conditions</i> :	
Unsuitable clothing (or inadequate clothing)	637
<i>Rest</i> :	
Bed-time later than 7-0 p.m.	2574
No day-time rest	3457

Ante-natal Clinics at Child Welfare Centres

The average number of ante-natal clinics held weekly is forty-eight and the average attendance is seventeen per clinic; 66 per cent of the women seen by Health Visitors in 1937 attended these clinics. This is an increase of 4 per cent on the previous year. The midwives are co-operating excellently and the great majority make every effort to secure their patients' attendance. A special consultation clinic is held weekly at Lancaster Street Centre.

<i>Year.</i>	<i>No. of Sessions.</i>	<i>No. of fresh expectant mothers attending ante-natal clinics.</i>	<i>Total attendances.</i>	<i>Births and Still-births.</i>	<i>Births and Still-births visited.</i>	<i>Percentage of mothers visited attending ante-natal clinics.</i>
1916	No record	561	No record	21347	8143	7
1917	"	538	"	18286	9143	6
1918	"	1603	3275	17430	12044	13
1919	"	2940	6250	20079	15154	19
1920	857	3939	8812	25980	21006	19
1921	824	4683	10380	22938	18718	25
1922	800	4095	8450	20510	16254	25
1923	890	4386	9391	19698	16193	27
1924	981	4043	10395	18934	15969	25
1925	1034	4346	11135	18445	15647	28
1926	1117	4630	12043	18517	15626	30
1927	1188	4615	12252	17773	16217	28
1928	1304	6098	15803	17817	16186	38
1929	1522	7308	19751	17393	16522	44
1930	2071	9466	28323	18105	17828	53
1931	2090	8616	27608	17740	16937	51
1932	1892	8174	25983	17219	16190	50
1933	1905	8290	26538	15645	14975	55
1934	1953	8867	28719	16261	15161	58
1935	2203	9200	32871	16459	15500	60
1936	2368	9771	37556	16976	15806	62
1937	2510	10798	43504	17587	16259	66

Ante-natal clinics are also held at Dudley Road and Selly Oak Hospitals, at the Maternity Hospital, and at the City Maternity Homes at Heathfield Road and Wake Green Road. In 1937 the number of mothers attending numbered 6,104—probably a large number of these attended child welfare centres also.

Ultra-violet Light Clinics at Child Welfare Centres

<i>Condition.</i>	<i>Total No. of Cases.</i>	<i>No. of New Cases.</i>	<i>No. of Attendances</i>
(1) Rickets, prophylactic rickets and delayed dentition	4437	1466	20084
(2) Catarrhal children	844	319	3754
(3) General debility	2210	732	10120
(4) Nervous irritability	26	6	150
(5) Chronic chest conditions	767	278	3391
(6) Asthma	52	15	318
(7) Muscular weakness	297	91	1383
(8) Malnutrition.....	212	85	936
(9) Skin conditions	18	8	95
(10) Anorexia	181	58	820
(11) Enlarged glands	66	15	312
(12) Other conditions	597	226	2623
TOTALS	9707	3299	43986

The clinics are situated at the following Centres : Bloomsbury Street, Carnegie Institute, Floodgate Street, Greet, Harborne, Hope Street, Kingstanding, Lancaster Street, Monument Road, Sutton Street, Selly Oak, Stirchley, Stratford Road, Wright Street, and Yardley Wood.

The total attendances show an increase of 6,370 compared with 1936, while 1,483 more children were treated.

Remedial Exercise Clinics for Toddlers

	<i>No. Attending.</i>	<i>No. of Remedial Clinics held.</i>	<i>No. of Attendances.</i>
Carnegie Institute	36	50	635
Kingstanding	94	48	721
Lancaster Street	97	49	854
Monument Road	65	50	910
Selly Oak	117	48	936
Stratford Road	103	49	893
Wright Street	101	48	912
TOTALS	613	342	5861

<i>Type of Deformity.</i>	<i>Total No. of Cases of Defect.</i>	<i>Percentage of Total Cases of Defect.</i>
Genu Valgum	413	38.5
Postural defects	236	22.0
Flat feet	182	16.9
Chest Deformities	104	9.7
Hypotonicity	103	9.6
Constipation	30	2.8
Torticollis	2	.2
Bowed Tibiæ	1	.1
Spina Bifida	1	.1
Lordosis.....	1	.1
	1073	100.0

Dental Treatment

	<i>Stratford Road.</i>	<i>Carnegie Institute.</i>	<i>Lancaster Street.</i>	<i>Selly Oak.</i>	<i>Total.</i>
Number of clinics held.....	229	272	139	52	692
Mothers attending	3044	3613	1809	508	8974
Children attending	1358	1535	791	470	4154
Average attendance :					
Mothers	13	13	13	9	*48
Children	6	6	6	9	†27
Local anæsthetics	70	63	32	16	181
Gas	2321	2465	1362	868	7016
Dentures supplied	307	445	216	—	968
Total of mothers and children attending				13128	
Number of inspection clinics held				24	
Number inspected				1555	
*Average per clinic				12	
†Average per clinic				7	

Treatment of Ear, Nose, Throat and Eye Conditions

Cases referred from Child Welfare Centres and examined during 1937 at the Children's Hospital for the treatment of the above conditions were as follows :

Eyes, ear and throat Cases	370
Tonsils and adenoids (operation required)	433
Tonsils and adenoids (examination only)	271

The Provision of Food for necessitous Mothers and Children Municipal Kitchen and Feeding Centres, 1937

The meals provided are uniformly appreciated. The usual two-course meal, consisting of meat, two vegetables and pudding, is served for both mothers and toddlers and the latter are given a glass of milk and some fruit in addition.

During 1937 the attendances at the thirteen dinner centres were 122,321 (38,321 mothers and 84,000 toddlers).

ATTENDANCES

Newtown Row	8167
Hope Street.....	9416
River Street	9531
Bloomsbury Street	9719
Carnegie Institute	9296
Sutton Street	10,915
Monument Road.....	19,013
Lancaster Street	7185
Handsworth	4176
Irving Street	10,947
Kingstanding	9561
Lansdowne Street	4873
Wright Street	9522
Mothers.....	38,321
Toddlers	84,000
TOTAL	122,321

Numbers of individual mothers and children who received dinners at some period during 1937 :

	Mothers.	Toddlers.
Newtown Row	48	95
Hope Street	60	138
River Street	72	117
Bloomsbury Street	49	153
Carnegie Institute	56	143
Sutton Street	86	149
Monument Road	120	295
Lancaster Street	48	105
Handsworth	27	70
Irving Street	56	152
Kingstanding	46	136
Lansdowne Street	27	85
Wright Street	103	155
TOTALS.....	798	1,793

COST

	£	s.	d.
Cost of food	1808	16	1
Cost of transport	229	18	0
	£2038	14	1
Receipts from Centres	298	12	9
	£1740	1	4

Net cost per meal, excluding wages and overhead charges..... 3·4d.

Approximate total cost per meal, including wages and overhead charges.... 5·0d.

Toddlers' "Breakfast" Meals

At eighteen centres half a pint of milk and bread and butter were served to toddlers at 9-0 a.m. on five days during the week, and half a pint of milk was taken home to be given to the children later in the day.

Number of individual children attending....	1817
Total attendances made	169267

Carnegie Infant Welfare Institute

Carnegie Institute, Hunters Road, Hockley.

This institution was presented to the Maternity and Child Welfare Committee by the Carnegie Trustees in 1923 to serve as a model child welfare centre and observation ward.

The child welfare centre occupies the ground floor, a dental clinic and X-ray department are provided in the basement, and the observation ward (ten beds) is on the first floor with accommodation for resident staff.

During the year 1937 the routine work of the Carnegie Institute has proceeded as usual. The average attendance at the infant consultations is maintained at fifty-nine per clinic. There are five infant consultations each week.

The attendance at the ante-natal clinics has increased considerably. The municipal midwives now bring their booked cases in person to the centre, and are thus working in much closer collaboration with the doctor and health visitors than formerly.

The educational classes have been well attended, and there has been an increase in the number of mothers attending the test feeding clinics.

The toddlers' class continues to do excellent work. Several children have been sent by private doctors for special observation.

The Walker Shield has been won by the Carnegie Institute for the fourth time ; it was decided, with the approval of Mrs. Walker, that the shield should be won outright by the Centre. It has been hung in the waiting hall, and was unveiled by Mrs. Walker during Baby Week on July 7th.

The Parents' League of Health has had a successful year. Six lectures have been given and the Monument Road Centre is now affiliated to the League.

The Mothers' Committee continues to give most valuable help. By special efforts funds were raised, and 60-cwts. of coal were distributed at Christmas. In addition, shoes and a pair of socks or stockings were given to every child regularly attending for dinners, as well as other forms of assistance in necessitous cases.

	<i>Number Held.</i>	<i>Total Attendances.</i>
General Infant Consultations	241	13,360
Medical inspections (18 months to 5 years)....	48	728
Ante-natal clinics	147	2,468
X-ray clinics	47	509
Dental clinics (treatment)	272	5,148
Light clinics (treatment)	85	3,962
Remedial exercises (treatment)	49	790
Sewing classes	47	661
Cookery classes	33	274

Carnegie Observation Ward

Number of patients admitted	149
Average length of stay in the ward: Days	23
Re-admissions (4 owing to ward painting): Cases	9
Irregular dismissals: Cases	1
Transfers: To Canwell Hall Babies' Hospital	9
Children's Hospital	1
Dudley Road Hospital	1
Little Bromwich Hospital	5
Lordswood Nursery	1
Pype Hayes Convalescent Home	2
Birmingham Infirmary.....	2
Yardley Green Road Sanatorium	2
TOTAL CASES	23
Infectious Cases: Measles	3
Nasal Diphtheria	1
Dysentery	1
TOTAL	5
Influenza Cases	5
Positive Mantoux re-actions.....	*3
Deaths	6
Improved	44
Well	79
In statu quo	11
TOTAL	140

*Positive guinea-pig inoculation: 1.

CONDITIONS FOUND ON INVESTIGATION

	<i>Deaths.</i>	<i>Improved</i>	<i>Well.</i>	<i>I.S.Q.</i>	<i>Total Cases.</i>
Diseases of					
Alimentary System.....	—	10	23	—	33
Blood & Circulatory System	1	4	1	1	7
Genito-urinary System	1	6	12	—	19
Nervous System	—	4	1	4	9
Respiratory System	2	12	4	4	22
Deficiency diseases	—	1	4	—	5
Skin diseases	—	1	2	—	3
Congenital Syphilis.....	—	—	—	1	1
Miscellaneous	2	6	10	1	19
TOTALS	6	44	57	11	118
For Observation (mismanaged)	—	—	22	—	22

Parents' Guidance Clinic

The Parents' Guidance Clinic has been transferred from Carnegie Institute, Hockley, to the child welfare centre at 90, Lancaster Street. The first clinic at the new address was held on Tuesday, April 13th, 1937.

Number of clinics held during the year	47
Number of children seen: Boys	87
Girls	49
Number of mothers interviewed at the clinic	138
Number of fathers interviewed at the clinic	12

Fifty-eight new cases were referred to the clinic by doctors from the welfare centres :

Mothers.....	3
Boys	34
Girls	21
TOTAL	58

While the clinic was held at the Carnegie Institute thirty-one children were seen, in addition to the above, by Dr. Cox, the Medical Officer of the Carnegie Institute.

MOTHER :	
Amnesia	1
Melancholia	1
Nervous Instability	1
CHILD :	
Temper tantrums	7
Fear	11
Night terrors	7
Mismanagement	6
Enuresis	6
Self-assertion	4
Jealousy	2
Nervousness	3
? Mentally retarded	2
Negativeness	1
Backward speech	1
Anorexia nervosa	1
? Adoption	1
Obsession for chewing abnormal objects	1
Cruelty to animals	1
Stammering	1
TOTAL	58

One mother suffering from melancholia was admitted to Rubery Mental Hospital for a period of six months, and is now home and greatly improved. Arrangements were made for her child to stay with a foster mother.

Three children have been admitted to nursery schools. The environmental conditions in these cases were harmful and thwarting the children's progress mentally and physically.

Usually one day weekly is devoted to visiting the homes, and 224 visits were paid.

The home visiting has proved helpful. The parents respond well and seek advice after a visit paid with as little formality as possible.

The fathers appreciate the invitation to attend the clinic and attend with the mother and child. Many fathers have been interviewed in their own homes and the majority are willing and anxious to receive advice.

A report of each visit is made in the case sheet.

Many questions have been asked about sex education for children, and the following book has been recommended : " How a Baby is Born " (K. de Schweinitz), also copies of the *Home and School Council Magazine* have been given to parents.

Two mothers who were unwilling to attend the clinic were visited at the request of the Superintendent of the Child Welfare Centre. One mother has since attended the clinic and benefited from the advice given.

During the year twelve visitors had the work of the clinic explained to them by the Medical Officer.

Letters have been sent to all doctors referring children to the clinic. A copy of the letter sent has been filed in each case sheet.

During the last two months letters have been sent to the doctor when the child is discharged from the clinic. In this way it is hoped to keep in closer touch with the centre doctors.

Twenty-five children were discharged during the year.

Home Helps

Demands for the services of home helps are steadily increasing. During 1937 they were supplied in 1,137 cases, an increase of nineteen over the previous year.

There was some difficulty in getting sufficient suitable women, but this has been met by increasing the wages paid from 5/- to 6/- per day, and allowing one week's holiday with pay annually as well as the Saturday half-day off duty. It will be remembered that the home helps provide their own food.

Very good reports have been received as to the work of the home helps ; on the other hand, some of the homes are found to be extremely dirty and the children untrained in habits of cleanliness. This has been so much the case that in some instances the home help has had to be withdrawn. It is now proposed that whenever an application is made for the services of a home help the home will be specially visited, a report obtained as to its suitability, and efforts made to improve conditions.

Canwell Hall Babies' Hospital, near Sutton Coldfield. 84 Beds

This institution admits chronic ailing children from infancy to the age of five years.

The Hall is a large private house which was adapted for its present purpose, and opened as a babies' hospital in November, 1930. The children were transferred from the Lodge Road Hospital, the wards there having been used as a babies' hospital for some years previously.

On the ground floor there are two large wards and one small ward for infants under nine months (twenty-two beds). There are in addition on this floor three wards for toddlers, children from nine months to five years (twenty-eight beds). On the first floor there are three admission wards for toddlers (six beds in each). The children remain in these admission wards for three weeks and a group of six is admitted weekly. In addition, there are two other wards for toddlers, giving a further sixteen beds.

There have been no material additions or alterations since the institution was opened. The hospital has proved on the whole satisfactory for its purpose and the children have done well. There is always a long waiting list and the accommodation could be added to with advantage.

<i>Number of Admissions.</i>		<i>Number of Discharges.</i>	
0-1 years	145	Well.....	140
1-2 years	162	Improved	268
2-5 years	203	In statu quo	86
	—		—
TOTAL	510	TOTAL	494
	—		—

Number of children in the hospital at end of year	75
Number of deaths	14

Of the total number of discharges, twenty-five were removed by the parents against medical advice. Of these, two had not completed the initial period of three weeks.

The average length of stay was fifty-seven days.

The diagnosed cases discharged home were classified as follows :

<i>Disease.</i>	<i>0-1 year.</i>	<i>1-2 year.</i>	<i>2-5 year.</i>	<i>Total.</i>
Anæmia	1	12	4	17
Chest condition	11	21	22	54
Cardiac disease	—	—	2	2
Ear conditions (acute)	1	1	1	3
Tuberculosis	2	1	1	4
Gastro-enteritis	15	2	—	17
General debility and malnutrition	43	81	117	241
Septic tonsils	1	1	4	6
Mismanaged	8	5	6	19
Mentally deficient	—	—	1	1
Pink disease	4	—	—	4
Rickets	6	12	4	22
Urinary diseases	1	—	3	4
Other conditions	14	3	5	22
TOTALS	107	139	170	416

Cases transferred to other hospitals :

To the Children's Hospital	11 children.
To Yardley Green Road Sanatorium	6 "
To Lordswood Nursery.....	3 "
To Pype Hayes Convalescent Home	2 "
To Summer Hill Homes	2 "
To Birmingham Infirmary	1 child.
To Dudley Road Hospital	1 "

CAUSES OF DEATH

Broncho-pneumonia	3
Broncho-pneumonia and gastro-enteritis	3
Broncho-pneumonia, gastro-enteritis and acute rickets	1
Congenital heart disease and broncho-pneumonia.....	1
Gastro-enteritis and marasmus	2
Gastro-enteritis and prematurity	2
Otitis media and enteritis	1
Tuberculous meningitis	1
TOTAL	14

CLASSIFICATION OF AGES AT DEATH

0-2 months.	2-6 months.	6-12 months.	1-5 years.
4	4	5	1

INCIDENCE OF INFECTIOUS DISEASE

Chicken-pox	7
Whooping cough	1
Measles	9
Dysentery.....	24
Diphtheria	9
Scarlet fever	3
Mumps	4
TOTAL	57

The chief outbreaks of infection were as follows :

Dysentery

There were two chief outbreaks of Sonne dysentery in January (eight cases) and December (eight cases). Of the twenty-three cases having

a positive fæcal swab, three cases had absolutely no clinical symptoms. There was one case of Flexner dysentery in an infant. All the cases were of a mild type.

Diphtheria

There was a small outbreak of faucial diphtheria in May-June (five cases). The other cases occurred at isolated times and were of the nasal variety.

Measles

There was an outbreak in April affecting eight children. An isolated case occurred in July in a recently admitted child.

Tuberculosis

Eleven cases were found to have a positive Mantoux reaction. In seven of these cases a family history of tuberculosis was elicited. Six of the children were transferred to Yardley Green Road Sanatorium, and one to the Children's Hospital.

Pyre Hayes Hall Convalescent Home, Erdington. Mothers, 24 ; Babies, 20

This large private house has been adapted as a convalescent home for mothers with their infants, and has been in use since 1920. Expectant and nursing mothers are admitted.

A mother may bring her infant, but no infants over the age of six months can be accommodated. The period of rest is helpful and the institution also serves an educational purpose, teaching young mothers how to care for their infants. There are twenty-four beds for women and twenty-cots for infants. The period of stay is normally a fortnight.

The numbers show a marked increase to those of last year.

The mothers have been contented and very little sickness has occurred among the babies. Several sick mothers were transferred to hospital.

It has been necessary to admit a number of new-born infants without their mothers, when the mother was seriously ill, owing to lack of other accommodation. These infants have done very well.

Concerts and plays were given by friends to the patients during the winter months.

Gifts of perambulators, books and magazines have been received.

Total number of mothers admitted.....	432
Total number of babies admitted	418
Number of mothers without babies (expectant).....	48
Number of babies without mothers	24

Lordswood Resident Nursery, Harborne. Beds, 35

This institution admits children under the age of two years who are in need of care under the Public Assistance Committee regulations. The institution was a large private house which was adapted for its present purpose by the Public Assistance Committee and was handed over to the Maternity and Child Welfare Committee in 1930. There are in all three large wards with two small wards for admissions and a small isolation ward. The children are admitted, not for reasons of health, but for care and protection.

Ninety-seven children were admitted and one hundred discharged during 1937.

There was an epidemic of glandular fever during July and August which affected seven toddlers, but no child was seriously ill.

Twenty-four children have been transferred to hospital for the following reasons :

Enteritis	8
Bronchitis or Pneumonia	5
Tuberculosis.....	3
Otitis media.....	4
Wasting	2
Collapse (premature)	1
Infantile paralysis	1
TOTAL	24

Of these twenty-four children, seven died in hospital at the following ages :

<i>Under 3 months.....</i>	4 (3 enteritis) (1 pneumonia)
<i>3-6 months.....</i>	1 (marasmus)
<i>6-12 months</i>	2 (tuberculosis)

The three children transferred with tuberculosis all had tuberculous mothers, and on admission to the Nursery were found to have a positive Mantoux re-action.

All children over one year did extremely well, as is usual in this Nursery. Only three of the twenty-four children transferred to hospital were over one year of age (two otitis media and one infantile paralysis).

Nursing Staff

The following results were obtained in the examinations for the Nursery Nurses Certificates :

<i>Preliminary</i>	7 sat and all passed
<i>Elementary</i>	12 sat and all passed
<i>Advanced</i>	5 sat and 4 passed

City Maternity Home, Wake Green Road, Moseley. Beds, 47

This institution admits maternity cases and premature infants. The maternity cases are those who have no suitable accommodation in their own homes.

The large private house, "Sorrento," was handed over to the Public Health Committee in 1928, having previously been used as a hospital for disabled soldiers. A maternity home was urgently required, and it was decided to adapt the building for twenty maternity beds. The home was opened for this purpose in 1929. The following year the stable block was converted into an ante-natal clinic with an ante-natal ward above (ten beds), while later a new block was built to accommodate premature infants. In this block there is a ten-bed ward for infants and six single rooms for their mothers, with staff accommodation above. This building was opened in 1931. Since that date there has been no material addition to the institution.

During 1937 the number of deliveries in the Home was the highest yet recorded. Of the 847 cases 810 were booked and thirty-seven were un-booked cases from the ante-natal ward.

There was no case of puerperal septicæmia, although thirteen cases of mild pyrexia were notified. There was some increase in the number of cases of mastitis and a short special report is appended with a chart showing the incidence of the condition in relation to the special precautions taken as regards nasal swabbing and spraying.

There were two maternal deaths, the one due to a toxic myocarditis and the second due to obstetric shock and hæmorrhage.

The premature baby ward has been well used. There has been an increase in the number of infants admitted, though the number of mothers admitted with the infants has somewhat diminished.

Maternity Wards

Number of Deliveries	847
Primiparæ	484
Multiparæ.....	363
Booked cases	810
Unbooked cases	37

MOTHERS (BOOKED CASES)

(a) COMPLICATIONS OF LABOUR.		
Forceps deliveries.....	56= 6%	
Perineal lacerations	320=37%	
Post-partum hæmorrhage	23	
Prolapsed cord	7	
Breech presentation (with extended arms and/or legs)	21	
Twin pregnancies	9	
Placenta prævia	2	
Accidental ante-partum hæmorrhage.....	1	
Induction of labour	46	
Face presentation.....	1	
Inverted uterus	1	
External version under anæsthetic	3	
(b) COMPLICATIONS OF PUERPERIUM.		
(1) <i>Maternal Mortality</i>		2
(a) Heart failure during forceps delivery for persistent occipito posterior position. Post-mortem showed severe toxic myocarditis.		
(b) Shock and hæmorrhage from inverted uterus following normal delivery.		
(2) <i>Maternal Morbidity</i>		
Thirteen cases of pyrexia were notified. There were no cases of puerperal septicæmia.		
Reasons for pyrexia were as follows :		
Stitch abscess		1
Mild sapræmia		2
Cellulitis and white leg		2
Mastitis		3
Pyelitis		1
Influenza.....		1
No cause found		3
		13

INFANTS

Number Born	856
Born before 37 weeks	38=4.4%
Stillborn	24=2.8%
Deaths during first 14 days	21=2.4%
<i>Causes of Stillbirths :</i>	
(a) Ante-natal: Toxæmia	8
Syphilis	1
(b) Foetal abnormality: Malformation	2
Hydramnios	1
(c) Intra-natal: Difficult labour	4
Prolapsed cord	1
Cord round neck	1
(d) Unknown causes	6
<i>Causes of Neo-natal Deaths :</i>	
(a) Ante-natal: Toxæmia	3
Syphilis	1
(b) Foetal abnormalities	3
(c) Intra-natal: Birth injuries	4
(d) Prematurity	10
<i>Feeding of Infants on Discharge :</i>	
Breast fed	561=70%
Breast and bottle	164=20%
Bottle fed	86=10%

Ante-Natal Ward

Total admissions	411
Booked cases.....	327
Unbooked cases	84
Fifty-three cases were admitted for observation only or during early labour, therefore number with complications=274=34% of booked cases.	

REASONS FOR ADMISSION

Toxæmia.....	116
Pyelitis	63
For induction	53
Ante-partum hæmorrhage	20
Prevention of premature labour	13
Heart disease	12
Threatened abortion	5
Chest conditions	4
For external version	6
Renal calculus	2
Chorea.....	2
Pernicious anæmia	1
Graves' disease	1
Varicose veins	2
Vomiting	5
Albuminuria	39
Debility or anæmia	3
In premature labour	2
Chronic kidney disease	1
Eclampsia	1
Prolapse	1
Red degeneration of fibroid	1
Observation	5
TOTAL	358

Premature Baby Ward

Number of babies admitted to Ward :		
Premature	246	} 257
Feeble	11	
Number of mothers admitted with babies		61

REPORT ON WEAKLY BABIES

Number admitted	11
Number died	4
(Birth injuries, 3 ; Atelectasis, 1)	

REPORT ON PREMATURE BABIES

<i>Weight.</i>	<i>No. of Cases.</i>	<i>No. of Deaths.</i>	<i>Percentage Saved.</i>
0-2 lbs.	11	11 (all moribund)	—
2-3 lbs.	37	24 (16 moribund)	35
3-4 lbs.	91	47 (30 moribund)	50
4-5 lbs.	88	12 (8 moribund)	86·4
Over 5 lbs.	19	1 (moribund)	95
	—	—	
	246	95	
	—	—	
<i>Maturity.</i>	<i>No. of Cases.</i>	<i>No. of Deaths.</i>	<i>Percentage Saved.</i>
Under 28 weeks	14	14 (all moribund)	—
28-30 weeks	24	18 (12 moribund)	25
30-32 weeks	55	34 (19 moribund)	40
32-34 weeks	80	23 (17 moribund)	71
34-36 weeks	54	4 (2 moribund)	92
Over 36 weeks	19	2 (2 moribund)	90
	—	—	
	246	95	
	—	—	
Thus 62% of all admissions were saved, and of the 38% which died two-thirds were admitted moribund and died within twenty-four hours of admission.			

Mastitis

There has been a moderate amount of mastitis in this home during 1937, mainly of a mild type. In June it was decided to apply to this Maternity Home the measures which appear to have been successful in controlling mastitis in Heathfield Road Home in 1936.

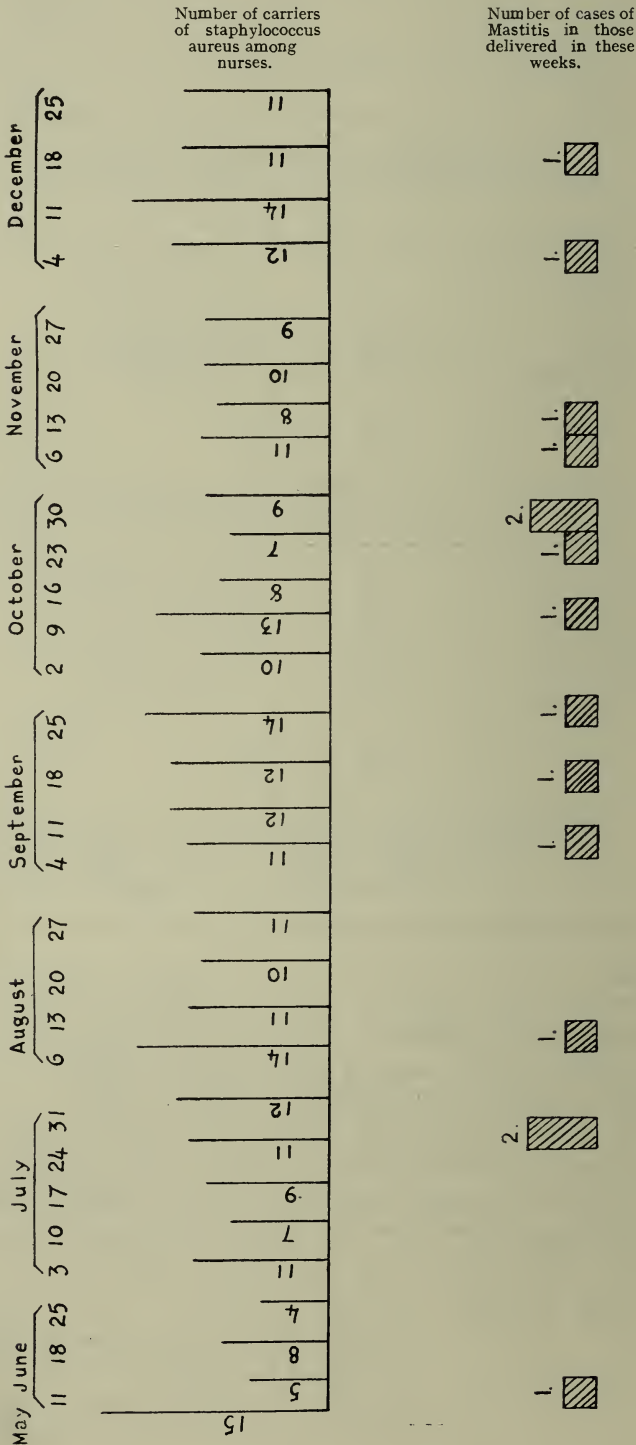
From 1st June onwards the entire nursing staff had nasal swabs taken weekly, and those whose swabs were found to show a growth of staphylococcus aureus had regular nasal spraying with a solution of crystal violet. The following figures show the incidence of mastitis among patients delivered before and after this procedure :

Before June 1st : 17 "flushed breasts."
7 abscesses (five after discharge from Home).

After June 1st : 13 "flushed breasts."
2 abscesses (one after discharge from Home).

The following chart shows the incidence of cases of mastitis relative to the staphylococcal carrier rate among the nursing staff :

REPORT ON MASTITIS



City Maternity Home, Heathfield Road, Handsworth. Beds, 30

This institution admits maternity cases who have no suitable accommodation in their own homes. The house was an institution for unmarried mothers and was taken over by the Maternity and Child Welfare Committee in 1920. It was adapted for use as a maternity home with eighteen beds. The Home was required to serve the northern half of the city. The original accommodation was very unsatisfactory, and various additions have been required.

A new building was erected in the grounds to serve as an ante-natal clinic and isolation unit and to provide additional staff accommodation. The new building was opened in March, 1937.

It is proposed to build a premature baby ward in connection with this institution during 1938.

During 1937 there has been a marked increase in the work done in the Home, and the results show a very high standard has been reached. The number of confinements has increased as well as the number of patients treated in the ante-natal ward. The clinics have been correspondingly larger, including an increase in the post-natal attendances and the number of consultations. The alterations and additions carried out during the previous year have made this increase in work possible.

There was no case of puerperal sepsis, and no case of puerperal pyrexia. The one maternal death was due to acute pyelitis occurring in a patient suffering from post-influenzal myocarditis.

One patient suffering from mumps was admitted in labour to the isolation block where she was confined and nursed during the puerperium.

The routine prophylactic measures which were started last year to combat outbreaks of mastitis have been continued with satisfactory results. There have been no cases of mastitis in the Home this year.

Maternity Wards

Number of Deliveries	518
Primiparæ	237
Multiparæ	281
Booked cases	483
Unbooked cases	35

MOTHERS (BOOKED CASES)

(a) COMPLICATIONS OF LABOUR.	
Forceps deliveries.....	19=3.3%
Perineal lacerations	36=6.6%
Episiotomy followed by normal delivery	6
Cervical laceration	1
Obstetric shock.....	1
Manual removal of placenta	3
Post-partum hæmorrhage (exceeding 20-ozs.)	3
Prolapsed cord	1
Breech presentations (extended legs)	12
Twin pregnancies	7
Placenta prævia	1
Accidental hæmorrhage	2
Eclampsia	2
Surgical inductions	36
(b) COMPLICATIONS OF PUERPERIUM.	
(1) <i>Maternal Mortality</i>	1
Acute pyelitis in a patient suffering from myocarditis.	
(2) <i>Maternal Morbidity</i> :	
Puerperal pyrexia.....	—
Mastitis	—
Pulmonary embolism	1
Thrombo-phlebitis migrans	1

INFANTS

Number Born	524
Born prematurely (under 5-lbs. weight).....	27
Still-born	9=1.7%
Deaths during first 14 days.....	10=1.9%
<i>Causes of Still-births :</i>	
(a) Ante-natal: Eclampsia.....	1
Hyperpiesis	1
Nephritis and Toxæmia	1
Accidental Hæmorrhage	1
(b) Fœtal abnormalities: Hydrocephalic	1
Anencephalic	1
(c) Intra-natal: Locked Twins	1
(d) Prematurity	2
<i>Causes of Neo-natal Deaths :</i>	
(a) Ante-natal: Placenta prævia	1
Acute toxæmia	1
(b) Intra-natal: Cerebral hæmorrhage	1
(c) Post-natal: Icterus gravis	1
(d) Prematurity	6
<i>Feeding of Infants on Discharge :</i>	
Breast fed	336=67%
Breast and bottle.....	93=18%
Bottle fed	76=15%

Ante-Natal Ward

Total admissions (including re-admissions)	245
Individual admissions	223
Booked cases	157
Unbooked cases	66

32·5 per cent of booked cases were admitted to the ante-natal ward.

53 per cent of unbooked cases admitted to the ante-natal ward were kept for delivery.

REASONS FOR ADMISSION TO ANTE-NATAL WARD

Toxæmia	54
Hyperpiesia	9
Hyperemesis	8
Pyelitis	20
Ante-partum hæmorrhage	10
Cardiac disease	10
Anæmia	9
Epilepsy	1
Severe varicose veins	12
Inductions (slight disproportion and post-maturity)	49
Threatened abortion	3
Rest	26
Observation	12
TOTAL	223

The City Maternity Homes

Maternity Wards

MOTHERS

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
Number of confinements	847	518
Booked cases	810	483
Unbooked cases	37	35
Primipara	484	237
Multipara	363	281
Puerperal sepsis	—	—
Puerperal pyrexia	13=1·5%	—
Maternal deaths	2	1
Forceps deliveries	56=6%	19=3·3%

INFANTS

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
Number of births	856	524
Still-births.....	24=2·8%	9=1·7%
Deaths in first fourteen days	21=2·4%	10=1·9%
Premature births (before 37th week).....	38=4·4%	27=5·1%
Ophthalmia Neonatorum	1	1

Ante-natal Ward

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
Admissions	411	223
Booked cases	327	157
Unbooked cases	*84	†66

*Of these 37 were kept for confinement in the Home.

†Of these 35 were kept for confinement in the Home.

Clinics

ANTE-NATAL

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
<i>Doctors' Clinics :</i>	(4 sessions weekly).	(3 sessions weekly).
Attendances	4509	2743
New patients	1023	648
Consultation cases	52	99
<i>Midwives' Clinics :</i>	(1 session weekly).	(1 session weekly).
Attendances	854	606
TOTAL ATTENDANCES	5363	3349

POST-NATAL

	<i>Wake Green Road Home.</i>	<i>Heathfield Road Home.</i>
	(1 session fortnightly).	(1 session weekly, combined with ante-natal clinic.)
Total attendances	458	334
Attendance rate	54%	53%

Premature Babies' Ward

Admissions	257
Premature babies	246
Feeble, but full-term babies	11
Survival rate of premature babies	62%

Care of the Unmarried Mother

The procedure in regard to the care of the unmarried mother has been detailed in previous reports.

During the year 474 unmarried mothers and fifty-eight married women with illegitimate children came under the care of the Department. Three hundred and ninety-one were first cases of illegitimacy.

It was possible to give a considerable amount of help, and there can be no question that such help greatly benefits the children.

Statistics are given below :

<i>Dealt with at</i>	<i>First Cases.</i>	<i>Multiple Cases.</i>	<i>Married Women.</i>
Hope Lodge	*47	1	—
The Hawthorns (S.A.)	22	7	2
Woodville (R.C.)	†22	—	—
Cleveland House (V.D.)	8	—	—
The Hostel	17	3	—
Birmingham Infirmary	6	6	8
Greenhill Hostel.....	2	—	—
Mrs. Legge Memorial Home, Wolverhampton ..	1	—	—
Own home, except for confinement	194	52	39
Own home entirely	72	14	9
TOTALS	391	83	58

*Nine more cases sent but did not stay.

†Eleven cases "out of city."

REPORT ON TOTAL 532 CASES AT END OF THE YEAR

79 mothers and babies still in the Homes	15%
53 babies have died	10%
30 babies have been adopted	6%
15 babies are in Homes (without the mother).....	3%
38 babies are with foster mothers	7%
38 girls have married the babies' fathers.....	7%
44 mothers and babies have left the city.....	8%
235 mothers at home with their babies.....	44%
532	

GIRLS UNDER AGE OF CONSENT

14 years old	2
15 years old	6
16 years old	10
TOTAL	18

The number of cases with venereal disease was twenty-three. All received systematic treatment.

The subsequent history of cases dealt with in previous years is given below :

<i>Cases dealt with.</i>	<i>Total Illegitimate Births.</i>	<i>Further Pregnancies in 1937.</i>					
		<i>2nd.</i>	<i>3rd.</i>	<i>4th.</i>	<i>5th.</i>	<i>6th.</i>	<i>7th.</i>
1937=532	628	—	—	—	—	—	—
1936=400	553	4	2	2	—	—	—
1935=416	530	14	5	3	—	—	1
1934=428	574	7	2	—	—	—	—
1933=451	554	3	2	—	—	1	—
1932=318	546	1	—	—	—	—	—
1931=239	576	2	—	—	—	—	—
1930=222	623	—	—	1	—	—	—

It is found each year that about 2 per cent of cases dealt with have another child.

Infant Life Protection

The Supervision of Foster Children

The statistical data are given below and relate mainly to the children given care and protection in private homes.

On the whole, the standard of care has been most satisfactory, and it has not been necessary to approach the Courts in dealing with the few difficulties that have arisen.

The Committee scheme for the supply of suitable foster mothers has continued to be of great benefit, and the number of children dealt with has steadily increased, though up to the end of 1937 less than 50 per cent of the total fostered children were under the scheme. The scheme is now widely known and care has been taken to select suitable children, dealing only with Birmingham cases.

Useful co-operation has been secured with the Public Assistance Department.

Under the foster mother scheme a high standard of foster home has been maintained. Details are given below of those cases where it has been necessary to remove children from the original foster mother. This is done with the greatest reluctance since it is considered much more satisfactory to retain the child in one particular home where it forms part of the family group. The approximate average weekly cost to the city, per child, under the foster mother scheme was 6 /-.

The foster mother scheme ceases to operate when the child reaches the age of five. During 1937 nine children were in this position and the arrangements made for them are detailed below.

Children not under the foster mother scheme pass from supervision when they reach the age of nine. There were nineteen such cases during 1937, and they all remain with their foster mothers.

Owing to the influx of people from the distressed areas and Ireland many applications have been received from married couples, both wishing to work, for foster mothers in the city or for information as to day nurseries. For the majority of such cases suitable accommodation with daily minding was recommended.

The Foster Mother Service

Applications for foster mothers	410
Applications for foster children	201
Foster mothers interviewed for advice and instruction.....	491
Homes registered	562
Visits paid to ascertain suitability of homes offered.....	507
Special visits paid	606
*Routine visits (special workers only)	111
At the end of 1937 the figures were as follows:	
Foster mothers on scheme.....	156
Total foster mothers	379
Foster children on scheme.....	173
Total foster children.....	408
Illegitimate children :	
On scheme	149 = 36%
Not on scheme	187 = 46%
Legitimate children :	
On scheme	24 = 6%
Not on scheme	48 = 12%

*Other routine visits are paid by Health Visitors.

FOSTER CHILDREN UNDER SCHEME REMOVED TO OTHER HOMES

Able to return to responsible parent or relation.....	35
Legally adopted	18
Removed to an institution (two mentally defective).....	8
Mother left city	1
Removed to another foster mother under scheme:	
(a) Removed to have same foster mother as his brother	1
(b) Foster mothers pregnant	4
(c) Foster mothers ill	5
(d) Various reasons	12
(e) Child died	1
TOTAL	85

CHILDREN ON FOSTER-MOTHER SCHEME WHO HAVE ATTAINED THE AGE OF FIVE YEARS

Payment now direct—adoption pending.....	1
Child returned to mother	2
Payment now direct—with same foster mother.....	2
Foster mother kept child for very small payment for a time ; now legally adopted	1
Foster parents legally adopted child.....	1
Child removed to new foster mother (not scheme).....	1
Foster mother kept child for six months after five years old ; now care of mother.....	1
TOTAL	9

NEW CASES DEALT WITH ANNUALLY

	Scheme.					Outside Corporation Scheme.				Total (All foster children)
	Illegitimate		Legitimate		Total	Illegitimate		Legitimate		
1935.....	87	41%	12	6%	99	81	39%	30	14%	210
1936.....	60	29%	16	8%	76	75	37%	53	26%	204
1937.....	85	36%	22	9%	107	58	24%	73	31%	238

Adoption of Children in Birmingham

A number of adoptions were arranged in conjunction with this Department during the year. Those initiated by the Department were solely in respect of children where it was impossible to keep the child with the mother.

The medical investigation of these children which is carried out at the Carnegie Institute prior to their adoption is much appreciated by the adopting parents. In two instances the children were proved to be unsuitable for adoption for medical reasons.

SUMMARY OF ADOPTIONS ARRANGED DURING 1937

Interviews : Applications.....	91
Other interviews.....	442
TOTAL	533
Visits : Homes inspected	139
Other visits	215
TOTAL	354
Homes inspected for Adoption Societies :	
For National Adoption Society	21
„ Homeless Children's Aid	19
„ Church of England Waifs and Strays.....	1
TOTAL	41

HOMES REJECTED

Homes rejected because adopting parents too young.....	5
Adopting parents too old	2
Unsuitable premises—condemned property	1
Adopting parents living in furnished rooms.....	1

THE FOLLOWING ADOPTIONS ARE COMPLETED

Private arrangement between mother and foster mother.....	18
Other privately arranged adoptions.....	10
Illegitimate child of widow	3
Illegitimate child of married women	3
Mother unable to support, or otherwise unable to have child	14
Illegitimate child—mother dead	1
Mother unable to take child home—relatives unaware of child's birth	6
Other societies	2
TOTAL	57

City Midwifery Service

The situation in relation to midwifery practice has materially altered during 1937, by the coming into operation of the Midwives Act, 1936. Under this the city midwifery service has been established.

The Birmingham Scheme was approved by the City Council on the 5th January, 1937, and was subsequently submitted to the Ministry of Health. No material criticisms of the scheme were made. The necessary steps were then taken to advertise the provisions of the Act, and of the scheme approved for the city.

A table is given below setting out the midwives retiring under the Act, from month to month, as well as the new appointments and the number of existing district midwives who applied for the city service and were accepted.

<i>Month.</i>	<i>Midwives Retiring.</i>		<i>Municipal Midwifery Service.</i>		<i>Resignations</i>
	<i>Compulsory</i>	<i>Voluntary</i>	<i>Existing Midwives taken into City Service</i>	<i>New Midwives Appointed.</i>	
1937.					
May	4	6	—	2	—
June	12	8	1	23	—
July.....	2	11	36	16	—
August	2	7	1	15	*2
September	2	3	1	2	—
October	1	—	—	6	—
November	—	2	—	4	†5
December	—	—	—	—	1
TOTAL	23	37	39	68	8
Remaining at end of year : City Midwives					99
Independent Midwives.....					59
TOTAL					158
(including 12 attached to the Maternity and Queen's Hospitals)					—

* One retirement with compulsory surrender of certificate.

† One retirement with voluntary surrender of certificate.

It will be seen that at the end of the year ninety-nine city midwives were in practice, as well as forty-seven independent midwives and twelve midwives working under the Maternity and Queen's Hospitals.

At this stage it was reported to the Ministry that Birmingham was now in a position to have Section 6 of the Midwives' Act, 1936, put into operation, under which the practice of midwifery for gain by unqualified persons is prohibited; and the Ministry in due course fixed June 1st, 1938, as the date from which such practice became illegal.

With the exception of the midwives accepted, who had previously been in practice in the city, all new midwives joining the scheme required to be general trained nurses (S.R.N.) and qualified midwives.

The conditions relating to the service as regards salary and age at entry, marriage, etc., were approximately the same as those applying to health visitors. Certain modifications were required in relation to vacations and residence. The uniform provided for the city midwives is green, in contrast to the health visitors' navy blue.

A scale of fees for the payment of the midwife's services was based on the family income per head, after deducting the rent, and in the case of the unemployed and necessitous applicants a maternity packet was supplied free of cost.

A summary of the particulars of the City midwifery service is given below, together with the conditions of service.

CITY MIDWIFERY SCHEME

Number of Midwives to be employed

Allowing for midwives likely to maintain independent practice rather than join the Municipal Service, or to resign and receive compensation, and assuming an average of 100 cases per midwife per annum where a midwife has a pupil attached to her for training purposes, and eighty per annum in the case of a midwife without a pupil, it was estimated that approximately 136 midwives (including reliefs and those to be employed by the Maternity Hospital) would be required for providing an adequate midwifery service for the city. The actual numbers in this service at the end of 1937 are given in the table on page 88.

The Governing Body of the Maternity Hospital, which is a voluntary institution, retains its district midwifery service, with certain amendments of district boundaries, and is applying terms of service identical with those of the Corporation.

Retirement of Midwives in Private Practice

Midwives who had attained the age of sixty-five years at the inception of the scheme were required to retire from private practice.

Midwives between sixty and sixty-five years of age and in private practice at the commencement of the scheme were to be compulsorily retired with compensation within three years, if they have not elected voluntarily to retire.

Conditions of Service

Salary

£200, rising by £10 per annum to £280.

Uniform allowance, £20 per annum.

Pension in accordance with the Corporation Superannuation Scheme. In certain cases the Corporation at their discretion may include for purposes of superannuation a period of previous practice as a midwife up to ten years.

Essential equipment is provided, and telephones installed where necessary.

Qualifications

General trained nurses (S.R.N.) and qualified midwives (C.M.B.).

Suitable midwives already in established practice in Birmingham and holding the C.M.B. certificate only, were eligible for appointment on the initiation of the service.

Age at Entry

For new entrants (as distinct from private midwives thus taken over), twenty-four to thirty-five years.

For district midwives taken into the service, twenty-four to fifty-five years.

Age for Retirement

Sixty-five years or such other modifications of that age as may be determined by local or general legislation later.

Health

Midwives are required to pass a medical examination on appointment.

Sick leave on scale applicable as to other Corporation employees.

Marriage

New entrants must be single or widowed. District midwives admitted to the service at its initiation may be married women without young children (under ten years), and of an age when further children are unlikely.

Any midwife marrying after joining the service is required to resign.

Uniform

Midwives wear a prescribed uniform.

Vacation

Four weeks' annual vacation. A long week-end (Friday, 2-0 p.m., to Monday, 12-0 noon) is allowed once a month, subject to administrative requirements.

Refresher Course

Every midwife is to attend refresher courses as directed. The expenses of this course will be met by the local authority.

Residence

Midwives will be required to reside in that part of the city in which they are in practice.

In general, it is desired that two midwives shall work in partnership, and a residence in common proves desirable in a number of cases.

Resignation

Four weeks' notice of resignation is required. Midwives must give an undertaking not to practise as independent district midwives within the city area after resignation.

Duties

Midwives are required to act as district midwives and maternity nurses under the Central Midwives Board rules, and, in addition, to attend

ante-natal clinics at child welfare centres and carry out other suitable duties as may be directed. In general, it is intended that midwives shall book seven cases a month. They will also act as relief midwives when directed.

Certain midwives are required to take a pupil and in that event book patients to an average of eight or nine per month. When a pupil is taken, an allowance is made for board.

All midwives report weekly the number of cases booked, on forms supplied for the purpose. If necessary bookings are adjusted between midwives, though patients are given free choice within the midwife's booking capacity.

All midwives are required to make suitable arrangements for domestic help.

Scale of Fees

A scale of fees chargeable to patients for the services of municipal midwives or maternity nurses has been established.

Supervision of Midwives

During the year 1937, 279 midwives notified their intention to practise in the city. Of these twenty-two resided outside the city, and therefore do not come under routine inspections. Of the remainder, five were temporarily employed and twenty-six were attached to various institutions.

The midwives sent for medical help in 3,309 cases, for the mother in 2,333 instances, and for the child in 976.

Reasons for sending for medical help :

MOTHER		CHILD	
Delayed labour	441	Ophthalmia	613
Laceration of perineum ..	754	Prematurity	81
Hæmorrhage	198	Convulsions	16
Adherent placenta	79	Jaundice	17
Abnormal presentation ..	142	Deformity.....	43
Abortion or miscarriage ..	39	Skin eruptions	26
Rise of temperature	140	Other causes	180
Other causes	540		
TOTAL	2333	TOTAL	976

Eleven midwives were suspended during the year : six with septic fingers, one with a septic foot, one with a septic arm, one with nasal sepsis, and two as scarlet fever contacts. In two instances it was found necessary to report a midwife to the Central Midwives' Board.

The midwives attended 7,837 cases (43 per cent of the births and still-births occurring in Birmingham), and in 2,702 cases they acted as maternity nurses (15 per cent of the births occurring in Birmingham) ; total, 58 per cent. There were 150 midwives practising at the end of 1937, as compared with 180 in 1936.

The following table is of interest :

MIDWIVES' CASES: MEDICAL HELP CALLS

	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Total cases attended	10655	10934	9398	9894	9205	7933	7555	7496	7672	7837
Total medical help calls	3236	3026	3360	3065	2706	2256	2479	2607	2867	3309
Percentage of calls	30	28	36	31	29	28	33	35	37	42
Reasons :										
Delayed labour	902	806	913	758	592	432	500	413	498	441
Lacerated perineum	641	674	775	708	620	539	550	580	660	754
Hæmorrhage	210	190	213	220	186	158	165	179	182	198
Adherent placenta	104	85	79	61	71	56	75	55	69	79
Abnormal presentation	91	102	131	114	106	141	93	100	96	142
Discharging eyes	374	380	461	427	379	318	354	440	504	613
Other causes	914	789	788	777	752	612	742	840	858	1082

The following visits were paid during the year by the Supervisors of Midwives :

Routine visits to midwives	211
Special visits to midwives	371
Visits to still-births	262
Visits after neo-natal deaths	238
Visits to Ophthalmia Neonatorum cases	959
Visits to Puerperal Sepsis cases	84
Visits to Nursing Homes	20
Visits to handywomen	47
Other visits	385
Unsuccessful visits	591
The number of midwives interviewed was	1422

District Midwifery

Apart from admission to institutions, 11,674 women were delivered in private houses—3,004 by municipal midwives, 1,429 by midwives attached to the Maternity and Queen's Hospitals, 6,106 by private midwives, and 1,135, the balance, at home, by doctors assisted by qualified monthly nurses, relatives or handywomen. In all private medical practitioners attended 4,473 confinements, or 24 per cent of the total.

The Public Health Committee pay the private midwife's fee in certain cases of unemployment where the maternity benefit has lapsed, provided the home conditions are suitable for the confinement. The fee was paid in twenty-two cases during 1937.

Maternity Practice in Birmingham

The births occurring in the city during the year were as follows :

Births notified	17426
Still-births notified	710
Failed to notify	235
TOTAL	*18371

*This figure does *not* include Birmingham confinements occurring outside the city, but includes the confinements of a number of persons whose residence was outside.

Medical practitioners attended 24 per cent in the patients' homes and midwives 39 per cent, while 37 per cent of births occurred in institutions. This is set out in detail as follows :

DOMICILIARY MIDWIFERY

Cases at home attended by midwives :	
(a) No doctor engaged or present at birth.....	7201=39%
(b) No doctor engaged, but one called in for delivery.....	636= 3%
(c) Doctor engaged	2702=15%
The above figures include 1215 cases attended by Maternity Hospital midwives and 214 by midwives attached to the Queen's Hospital.	10539=57%
Cases attended at home by doctors assisted by nurses, other than midwives, by relatives or handywomen.....	1135= 6%

INSTITUTIONAL MIDWIFERY

Cases in Hospitals, Homes and Institutions:		
At Dudley Road Hospital	1345	} 6697=37%
Selly Oak Hospital	898	
Wake Green Road Home.....	847	
Heathfield Road Home	518	
Maternity Hospital	1402	
Queen's Hospital	255	
St. Chad's Hospital	319	
Women's Hospital	12	
General Hospital	24	
Hope Lodge	32	
Other Institutions	6	
Private Nursing Homes	1039	
TOTAL BIRTHS IN CITY		18371

Consultant Service

During 1937 the general practitioners called in 107 consultants under the Public Health Committee's Scheme :

For puerperal cases	26
For obstetric cases.....	81
TOTAL	107

Emergency Maternity Service

The emergency service for the domiciliary treatment of obstetric shock and hæmorrhage was used for eight cases during 1937.

All these cases recovered and in several instances the consultants concerned expressed very favourable opinions of the value of the emergency service.

During the year there were seven deaths from hæmorrhage and five from obstetric shock, but a consideration of these cases suggests that in only three of them would the emergency service have been of any value. In one of these three the emergency service was actually called, but not until the patient's condition was already too serious and she died just before the arrival of the outfit.

Most of the other deaths from shock and hæmorrhage were delivered in hospital or were treated in hospital.

Conditions for which the Service was used

Retained placenta and post-partum hæmorrhage.

Severe post-partum hæmorrhage.

Incomplete abortion. Severe hæmorrhage and shock.

Post-partum hæmorrhage.

Adherent placenta. Post-partum hæmorrhage.

Post-partum hæmorrhage and obstetric shock.

Obstetric shock.

Post-partum hæmorrhage and shock.

The Inspection and Registration of Nursing Homes

At the end of 1937 there were forty-three registered nursing homes in the city. Six nursing homes were given up during the year. These were all small maternity homes with either two or three beds. In two cases the owners gave up because they were retiring from practice under the Midwives' Act, 1936. In the other four cases the homes were given up on account of marriage, leaving the district, or ill-health.

Three new nursing homes were opened during the year, one for maternity cases and two for chronic medical cases. In addition, there were four new registrations due to change of owner or change of premises. These four registrations involved sixteen additional beds, including twelve in one home for maternity patients.

Total number of beds in the Homes.....	457
Number of Homes which are equipped for surgical work.....	15
Number of Homes which take chronic or senile cases only.....	14
Number of Homes which take maternity cases only.....	*6
Number of Homes which keep some beds for maternity cases..	†18

*With 23 beds.

†With approximately 80 beds for maternity cases.

Registration and Inspection

The following is the procedure in regard to the registration of nursing homes: on the receipt of an application for registration the proposed premises are inspected by a medical officer of the department, who informs the applicant as to the general alterations and adaptations that will be necessary. If the premises are considered suitable further inspections are made by a sanitary inspector, and officers of the Fire Department, City Surveyor's Department, the Electrical Supply Department, and, when necessary, the Gas Department. Recommendations are submitted to the medical officer of health, and the applicant is informed as to the work that will be required to make the house suitable for registration.

A final inspection is made of the nursing equipment and general accommodation by the medical officer, before the house is recommended for registration.

Routine inspections are made of all nursing homes six-monthly, and, in addition, further visits are paid in relation to puerperal pyrexia and stillbirths, and occasionally in relation to complaints.

A good standard is required in regard to staffing and accommodation, and particular attention is paid to sanitary equipment, kitchens and larders, and the arrangements for the prevention of infection, especially in homes taking maternity cases. The advice of the medical officers of the Department is always available, and is frequently sought by the keepers of nursing homes, and by doctors in relation to their patients in the nursing homes.

Residential Schools

There were fourteen residential schools on the register in 1937 as schools which take boarders under nine years of age, and which, therefore, come within the provisions of the Public Health Act of 1936, Section 219. One of these schools closed during the year. Inspections have shown that the conditions are satisfactory in these schools, except in one case where there was definite overcrowding and inadequate fire precautions, and in this instance the proprietor of the school decided to give up taking boarders. In no case does the total number of boarders under nine years of age exceed three in any school at present.

Birth Control Clinics. Year ended 31st December, 1937

	<i>Dudley Road Hospital.</i>	<i>Selly Oak Hospital.</i>
(1) Number of women seeking advice :		
(a) Married women suffering from gynæ- cological conditions, making preg- nancy detrimental to health.....	20	18
(b) Married women suffering from other forms of sickness detrimental to them as mothers, in that child-bearing is likely to seriously endanger life.....	35	29
(c) Other cases not coming within the categories authorised by the Ministry of Health	11	*4
(2) Number of women advised in birth control methods	55	47
(3) Number in which birth control advice was given but pregnancy resulted.....	4	†8
<p>*Advice not given.</p> <p>†—In two cases pregnancy was desired. In four cases no precautions were taken. In one case the cap was defective. In one case there was difficulty in following advice owing to adiposity.</p>		

SECTION C.

Sanitary Circumstances

SECTION C.

SANITARY CIRCUMSTANCES

Water Supply

I am informed by Mr. A. E. Fordham, Secretary to the Water Department, that for the year ending 31st December, 1937, the Water Department has been engaged mainly on the extension of mains to provide adequate supplies for the large areas recently developed for building estates.

This provision has involved the laying of a new 24-in. steel main from the Chester Road and Kingsbury Road junction at Tyburn to Kitts Green, which work is now in progress.

An extension was also carried out during the year to the 24-in. steel main from Hagley Road to Dudley Road, and this main is now in commission.

Work on the extension of the third main on the Elan Aqueduct has been continued throughout the year, and the delivery into Bartley and Frankley Reservoirs is sufficient to meet the average demand in the city.

The extension of Northfield covered service reservoir has reached the stage when it can be filled for testing purposes.

The new primary filter unit at Frankley is well advanced and should be available for use in the coming spring.

No case of contamination has occurred during the year and in the event of any use having to be made of the well supplies, continuous chlorination is carried on at each station.

Generally speaking, it may be stated that supplies have been satisfactory both from the point of quality and quantity—although in one or two districts building development has proceeded at such a rapid rate that the pressure in the pipes is reduced very considerably during periods of heavy draught.

These periods are of very short duration and with the extensions of mains now in hand should entirely disappear.

Routine Sampling of Water

One of two water inspectors is occupied part-time in taking samples from the Frankley and Whitacre Works, from the Corporation's deep wells at Longbridge, Aston, and Shortheath, and from the three levels of supply in the city.

Apart from routine sampling for chemical analyses and bacteriological examinations, special visits are paid and samples taken after stripping of filters, and no filter is passed into commission until a satisfactory result has been obtained. In cases of emergency also, where special work in the nature of construction or repair has been undertaken, there is co-operation with the Water Department to ensure that no unwholesome water passes into supply.

The numbers of samples of Corporation water taken for chemical analysis and bacteriological examination during 1937 were : chemical, 138 ; bacteriological, 570.

Wells

Routine bacteriological and chemical examination of samples taken from the wells supplying dwelling houses in the city—some 340 in all—has been continued, eighty-two premises being visited during the year. Use of Section 62 of the Public Health Act 1875 or, since 1st October, 1937, of Section 138 of the Public Health Act, 1936, has been made in a number of cases, where there has been evidence of pollution, to enforce the provision of a supply of water from the Corporation mains. In certain instances, however, by reason also of general disrepair, properties have been found to be appropriate for representation under the Housing Acts. In others, again, the likelihood of early demolition in connection with the development of new housing estates has meant that a request for the cleaning out of the well, and the general improvement of local conditions, has saved the owner unwarranted and sometimes considerable expense.

The condition of the well water has thus come to be an important factor in the consideration of action to be taken under the Housing Acts with regard to single houses or small groups of dwellings towards the outskirts of the city.

Drainage and Sewerage

The City Engineer and Surveyor informs me that new sewers were constructed during the year 1937 with a total mileage of 44·9.

The principal sewerage schemes completed during the year include the following :

Sheldon Sewerage—Provides for the sewerage of the Sheldon area, enabling numerous dumbwells to be abolished.

West Heath Sewerage, Section 1—Provision of valley sewers for the development of the Ivy House and Northfield Estates.

Lea Valley and Kitts Green Sewerage, Section 1—Construction of outfall sewers to drain the Lea Hall Estate being developed by the Corporation. The scheme will allow of the demolition of a number of dumbwells.

Trafalgar Road and Wood End Lane, etc., Sewerage—Undertaken to obviate flooding.

The following schemes are now being carried out :

Bristol Road South Sewerage, Rubery—Extension of sewer for the drainage of an area in Bromsgrove.

Bristol Road South Sewerage, Rednal House Estate—Necessitated by building developments.

Lea Valley and Kitts Green Sewerage, Section 2—Construction of outfall sewers to drain the Lea Hall Estate being developed by the Corporation. The scheme will allow of the demolition of a number of dumbwells.

Kingsbury Road Sewerage—Undertaken to obviate flooding.

Chester Road—Reconstruction of a short length of sewer which was found to be in a bad condition.

Hodgehill Park Estate, Castle Bromwich—In connection with the development of this estate, a new sewage pumping station has been installed by private enterprise pending the construction of a valley sewer.

Under the Birmingham Corporation (Rivers Improvement) Act, 1929, the improvement of the River Rea between Lawley Street and Moseley Street (Contract 3) has been completed, and the next Contract (No. 5), which includes for the improvement of the river between Moseley Street and the Bourn Brook, is now in hand.

Good progress has also been made on the deepening of the River Rea and underpinning of side walls between Saltley Viaduct and Watson Road.

Rivers and Streams

The annual report of the Tame Basin Joint Committee gives details of extensions or improvements which have been made in sewage plants during the course of the year, improving the general cleanliness of the River Tame and its tributaries. The report urges the need for development of sewerage and sewage disposal schemes on a regional basis.

The Tame Basin Joint Committee has constantly advised the adoption of this principle in order to prevent the duplication of sewers by adjoining authorities and the multiplication of sewage disposal sites, with the result that during the period the Committee has been in existence the number of sites where the disposal of sewage was being undertaken has been reduced from forty-three to thirty, and schemes at present in hand will enable a further reduction to be made during the next year or two.

The passing of the Public Health (Drainage of Trade Premises) Act, 1937, has already had the effect of encouraging traders to enter into negotiations with local authorities for the discharge of trade waste to sewers, and although this policy always has been commended as being

the most effective means of preventing pollution by trade waste, the presence of the waste must increase the difficulties of sewage purification, particularly in the case of the smaller local authorities.

This has become a further important reason why the question of sewerage and sewage purification should be viewed from the regional development point of view in the Upper River Tame. The presence of trade waste in the larger flow of sewage would not present the same difficulties of purification, and the centralisation of the flow at one large disposal works would justify the employment of more expert staff to supervise the process than is the case when the service is undertaken by individual authorities.

The following comments are made on development in relation to Birmingham during 1937.

The excellent standard of purification of the sewage reaching the Minworth Works of the Birmingham Tame and Rea District Drainage Board has been maintained.

Very good progress has been made with the work of enlarging the Yardley Sewage Disposal Works of the Drainage Board, and the Engineer (Mr. Whitehead) is of the opinion that the essential units in the purification process will be ready for use in July.

In the meantime, the plant available for the purification of sewage is restricted during the progress of the new work, and consequently an excess flow of only partially treated sewage is being discharged direct to the River Cole.

Owing to the rapid development of the area draining to the Coleshill Sewage Disposal Works, preparations are being made for duplicating the plant at this site.

A complaint of the pollution of a small stream has been investigated. The chief cause of the complaint appears to be the drainage from piggeries. It will be almost impossible to provide an effective system of drainage for the existing premises, and consequently pollution of the stream is likely to continue so long as these premises are permitted to exist. A notice to quit has been served on the occupier.

Investigations have been made into a large number of sources of pollution of the stream by the discharge of liquid trade waste, and observations upon the effective disposal of the waste liquids have been submitted for the consideration of the traders concerned. These have resulted in liquid waste being diverted from the stream to the sewer in two instances.

A section of defective pipe which had allowed gas liquor to escape to the stream has been replaced, and the leakage remedied.

Arrangements have been completed for the transfer of an industry, at present discharging liquid refuse to the stream, to new premises, where the waste liquids will receive preliminary treatment before discharging to the sewer.

Works for the treatment of liquid trade waste before discharge to the stream have been constructed and brought into use at one factory, and a scheme is being developed for the construction of similar works at another extensive factory.

Considerable discolouration and pollution of the stream has been caused by the discharge of the liquid waste produced in the gravel washing process, but effective remedial measures have been undertaken in two instances.

Closet Accommodation, Scavenging and Refuse Disposal

I am indebted to Mr. Codling, General Manager of the Salvage Department, for the following information :

Cesspools—At December 31st, 1937, there were 290 cesspools in the city, serving 622 premises, receiving attention by the Salvage Department. During the year 130 cesspools were abolished, and the premises connected to main drainage. The abolition of these cesspools affected premises in various parts of the city, but were situated mainly in outlying districts. Nine new cesspools were added to the department's records during the year.

Further sewerage developments are at present in progress and will, when completed, result in further reductions in the number of cesspools.

Privy Pans—The Department is regularly emptying 441 pans, a reduction of forty-seven being shown during the year. Some of the premises concerned were demolished and the remainder had w.c.'s installed, and the drainage connected to new sewers.

None of the existing pans are serving premises situated in populous parts of the city.

Privy Middens—There are 89 of these middens being emptied by the Salvage Department, as compared with 131 at the end of the previous year. The reduction in this number is mainly due to the premises concerned being demolished.

Refuse Storage Accommodation—Standard dustbins are in use at practically all premises throughout the city, for the temporary storage of refuse. Two types of standard dustbins are used, one with a capacity of $3\frac{1}{2}$ cubic feet and the other $2\frac{1}{2}$ cubic feet.

A voluntary dustbin hire scheme is in operation, and at December 31st, 1937, 11,091 owners of property had entered the scheme for the hire of 107,235 bins. The number of bins on hire represent approximately 38 per cent of the total number in use throughout the city.

Collection of House Refuse—House refuse is normally collected at weekly intervals, except in the case of the central city areas and at certain blocks of flats in the city. Refuse is generally removed from flats twice per week, and from large central city premises, including hotels, restaurants and cafes, a daily collection of refuse is usually provided.

During the year the Department purchased nine new electric and nine new petrol vehicles, these vehicles being utilised for additional work consequent upon building operations in the city, and for the replacement of vehicles taken out of service after having completed their depreciation lives.

All refuse collection vehicles put into commission for a number of years have been provided with bodies designed to prevent the dissemination of dust during loading operations. The majority of the vehicles are of the side-loading type, although a number of rear-loading, moving floor vehicles are also in operation.

Disposal of Refuse—Practically the whole of the house, trade and market refuse produced in the city is dealt with at the five refuse disposal and salvage works of the Department. Details of the quantity of refuse disposed of are as follows :

<i>How disposed of.</i>	<i>Year ended December, 1937.</i>
	Tons.
Treated at Works	269765
Disposed of at Tips.....	2905
Treated in Organic Plant	6007
Cesspool contents to sewers	60457
TOTAL	339134

Contracts were entered into during the year for extensions to the Tyseley and Brookvale Road refuse disposal and salvage plants. The areas served by these two works have been considerably developed during recent years in connection with house building operations, resulting in the existing plants being worked to their fullest capacity.

The cost of the extensions to the two works amounts to £45,500, and the extensions will, when completed, provide for the disposal of refuse consequent upon development of the areas for a number of years hence.

Refuse received from the various city markets and abattoirs is dealt with at the main works of the Department at Montague Street, where an organic plant is in operation. The materials dealt with at this plant include condemned meat, fish, offal, vegetable refuse, etc., the refuse treated being converted into fats, feeding meals and fertilisers.

Sanitary Inspection

The work of the general sanitary inspectors has been carried on steadily and vigorously throughout the year, and the following statement indicates the main headings under which visits were paid :

For systematic house inspection	62,235
For housing complaints	58,274
For infectious diseases	8,945
For inspection of courts.....	3,774
For inspection of manure receptacles	1,233
For inspection of drainage (construction or repair).....	5,271
For drain tests (smoke or water)	738
To common lodging houses	1,703
To houses let in lodgings	6,109
To tents, vans and sheds	94
To offensive trade premises	317
To workshops and factories, etc.	8,114
Under the Rats Order	4,586
Public house examinations	1,451
For miscellaneous complaints	7,764
To see owners or agents	4,529
For other purposes	18,484
Unsuccessful visits	11,373
TOTAL VISITS AND RE-VISITS	204,994

The total number of dwelling-houses inspected was 12,845, of which 4,889 were examined in the course of the systematic house-to-house inspection of selected streets. The remaining houses inspected were largely those in respect of which a complaint had been received. Of the total of 12,845 examined, 10,032 were found to need repairs of some kind. During the year notices were served for the following work to be done :

Houses to be disinfected	1,401
Repairs to houses	134,658
Houses to be cleansed by owner	4,152
Houses to be cleansed by tenant	36
Houses to have better ventilation	835
Houses to have separate water supply	390
Houses to be provided with damp course.....	281
Water or filth to be removed from cellars	224
Spouting to be put in order	6,309
Water closets to be repaired or reconstructed	8,250
Water closets to be cleansed	1,787
Additional water closets to be provided	308
Wash houses or ashplaces to be repaired or limewashed ..	4,123
Soilpipes to be repaired or removed.....	206
Defective drains	1,538
Additional drains needed	369
Sanitary sinks to be provided.....	440
Sink bend pipes to be repaired	799
Yards to be paved or repaired	2,271
Accumulations of rubbish, manure, etc., to be removed..	296

Internal water supply has been provided to 356 houses and two wash-houses which previously had to rely on a tap in the yard. This work has been carried out under the provisions of the Birmingham Corporation Act, 1929, under which the Corporation bears half the approved cost of the work. The amount expended in this way during 1937 was £1,103 10s. 2d.

Closely connected with an adequate water supply inside the house is the provision of a suitable and efficient sink. Last year 440 sanitary sinks were provided and 799 sinks were put in order.

In 4,188 cases the notice related to the cleansing, in 1,524 to the painting and in 835 to the improvement of ventilation of premises.

A large amount of work was done in improving yards and out-buildings. Notices were issued for twenty-two additional water closets to be provided, for 1,787 closets to be cleansed and made free from obstruction, and for 8,290 to be repaired. Repairs or additions to the drainage were required in 2,076 cases, and the improvement of wash-houses or ashplaces in 4,123 instances.

A staff of six men is engaged in cleansing some of the worst courts in the city, together with the water closets and ashplaces situated in them, subject to an agreed charge being paid by the owners of the houses. The total number of cleansings effected during the year was 5,593, eighty-six courts being dealt with weekly. In the course of this work a large number of water closets and drain traps were cleared of obstructions.

The total number of notices served during the year was 13,956, of which 8,140 were preliminary informal notices, and 5,816 were statutory notices.

The summonses taken out during the year were as follows :

General Nuisances	15
Houses let in Lodgings	8
Excessive Smoke	7
Shops Acts	223
Milk and Dairies Acts	2
Dogs fouling footpaths	8
TOTAL	263

Offensive Trades

Premises registered for the carrying on of offensive trades in the city are classified as follows :

	<i>Premises.</i>	<i>Visits paid by Inspectors.</i>
Tripe boiler	28	135
Rag and bone dealer	18	95
Blood boiler	—	4
Bone boiler	2	13
Fellmonger	4	13
Tanner	1	3
Soap boiler	2	6
Fat extractor	2	25
Gut scraper	3	23

Four tripe boilers, two rag and bone dealers, and one blood boiler have been removed from the register during 1937.

Apart from requests for the remedying of certain minor defects having relation to the cleanliness of the premises, which were readily complied with, no difficulties presented themselves in regard to the supervision of these premises. The premises of one firm have been entirely reconstructed and a new plant of modern type has been installed. This should obviate nuisance to the district, complaint of which had previously been received.

Common Lodging Houses

At the end of the year there were twenty-four registered common lodging houses in the city, affording accommodation for 1,791 males and seventy-one females.

It is satisfactory to note that the unusually high standard of cleanliness and sanitation established in these premises in Birmingham continues to be maintained.

Number of houses on register (for males only)	22
Number of houses on register (for females only)	2
Number of lodgers allowed	1,862
Number of day visits	1,313
Number of night visits	158
Number of special visits	222
Defects found	286
Number of summonses	—

Houses Let in Lodgings

At the end of the year there were 511 houses let in lodgings on the register, containing 3,319 rooms.

They were let as follows :

Number of Rooms let as single rooms	1,230
Number of Lets of two or more rooms together.....	845
Certified Accommodation (persons)	7,596

The visits and re-visits paid during the year numbered 6,109, an average of twelve per house.

Notices were served for the following matters :

Repairs ordered	1,867
Overcrowding	5
Cleansing required	242
Provision for cooking	122
Provision for food storage	272
Fire extinguishers needed	175
Lighting on stairs	61
Water supply	28
Other defects	289
Summonses issued for non-compliance with bye-laws	8

The standard of accommodation continues to be of very poor quality in a large number of houses let in lodgings, and the evil of sub-letting by persons unable or unwilling to live up to their responsibilities as landlords continues to be a serious factor in the housing difficulties of this unfortunate section of the community. A certain number of the worst houses have been represented, and as alternative housing accommodation becomes available some improvement is likely to follow.

Tents, Vans, and Sheds

The number of visits paid to these by the inspectors was ninety-four. In a number of cases particulars were referred to the City Surveyor with a view to action under the Birmingham Corporation (General Powers) Act, 1929.

Canal Boats

During the year 1937 the number of boats inspected on the canals within the city area was 1,207.

The 1,207 boats inspected were registered for the accommodation of 3,726½ persons, and when inspected were found to be carrying 1,331 men, 915 women, and 810 children, a total of 3,056 persons, represented in terms of adults as 2,651.

The following table shows the number of boats inspected during the last five years, giving the number of persons whom the boats were registered to accommodate and the actual number of occupants at the time of inspection :

Year.	No. of Boats Inspected	Registered to carry (Adults).	Actually occupied by :			Total Occupying.	Equivalent to Adults.
			Men.	Women.	Children.		
1933	1147	3520	1467	824	725	3016	2653.5
1934	1143	3448	1410	817	711	2938	2582.5
1935	1107	3332.5	1376	717	677	2770	2431.5
1936	1162	3409	1387	787	682	2856	2515
1937	1207	3726.5	1331	915	810	3056	2651

Of the 1,207 boats inspected during the year it was found that 1,095 or 90·7 per cent were in good condition and conforming with the Acts and Regulations, while in 112, or 9·3 per cent of the total, various contraventions were found. These are classified thus :

Boats with 1 contravention each..	27	Making total contraventions ..	27
" 2 contraventions ..	42	" " " " ..	84
" 3 " " " ..	36	" " " " ..	108
" 4 " " " ..	7	" " " " ..	28
TOTAL	112	TOTAL	247

Complaint notes were duly served on the owners in all cases, 112 complaint notes were issued during 1937, and thirty-three were brought forward from 1936. One hundred and thirty notices were complied with during the year, leaving an outstanding balance of fifteen.

During the year certificates were returned by owners signed by the various canal boat inspectors, showing that 130 complaints had been remedied.

The following table shows the number and character of contraventions found and remedied during the year :

<i>Contraventions referring to</i>	<i>Outstanding and brought forward from 1936.</i>	<i>Found during 1937.</i>	<i>Remedied during 1937.</i>	<i>Carried forward to 1938.</i>
Cabins requiring repairs ..	4	64	57	11
Cabins requiring painting..	15	43	49	9
Cabins leaking	1	51	41	11
Requiring lettering	18	34	51	1
Registration	9	26	33	2
Not producing certificate .	4	14	18	—
Dirty cabins	2	7	8	1
Overcrowding	2	2	3	1
Separation of sexes	1	2	3	—
Water vessels	—	3	3	—
No pumps	—	1	1	—
Ventilation	1	—	1	—
No certificate identifying owner of boat	—	—	—	—
Cabins not habitable	—	—	—	—
TOTALS	57	247	268	36

It has not been necessary during the year to take any court proceedings under the above Acts or the Canal Boat Amendment Regulations, 1925, all works being well carried out by owners.

Infectious Disease

One case of erysipelas occurred during the year, the patient being a woman aged sixty-two occupying the boat *Freda*, No. 562, Uxbridge. Full enquiries of the boat's movements were made and safeguarding instructions were given to and carried out by the patient and other occupants of boat, which was then allowed to proceed.

Registration of Boats

There was a net decrease of two boats registered at Birmingham during the year 1937, thus bringing the total to 610.

The 610 boats on the register are classified as follows :

Ordinary boats	501
Motor boats	109
Steam boats	—
TOTAL	610

Factories and Workshops

The visits paid under the Factories and Workshops Acts numbered 8,114. As a result of these visits notices were served as follows :

Want of cleanliness	276
Inadequate ventilation	34
Overcrowding	—
Inadequate drainage of floors	2
Other nuisances	369
Insufficient sanitary accommodation	82
Unsuitable or defective sanitary accommodation	921
Sanitary accommodation not separate for sexes	8
Illegal occupation of underground bakehouses	—

The arrangements made with H.M. Superintending Inspector of Factories for the Midland Area to co-ordinate the work of his office with that of the Public Health Department continue to operate harmoniously.

The number of workshops on the register is 2,416, and the visits of inspection paid to them numbered 2,323. In addition, 2,990 visits were made to factories, 118 to workplaces, 2,096 to food preparing factories, and 587 to outworkers' premises.

Rats and Mice

Throughout the year the provisions of the Rats and Mice Destruction Act have been systematically administered, special attention being paid to the matter during National Rat Week, which was observed from November 1st to November 6th.

During this week extensive efforts were carried out in Birmingham. Some 2,000 circulars were issued to premises, i.e., food stores, warehouses, etc., where rats were suspected, and the occupiers were requested to make a special effort to exterminate rats and to keep a record of their activities. The following is a summary :

Premises rat-proofed	142
Premises where rat catchers have been employed.....	111
Premises where baits and traps were used.....	396
Premises which were repaired on account of rats.....	156
Number of rats caught	2,136

In addition, special efforts were made by various large industrial undertakings and by Departments of the Corporation. The Public Works and Town Planning Department laid 739 baits, 80 per cent of which were taken, eight dead rats were found and forty-two rats were killed. The Markets and Fairs Department during this week laid 490 baits, 25 per cent of which were taken, three dead rats were found and thirteen rats were killed. The Salvage Department laid 3,839 baits; of these 60 per cent were taken, ninety-three dead rats were found and 2,000 rats were killed, approximately one half of which were young rats found in nests. The result of the efforts of the Great Western Railway Company was eleven dead rats found, 300 baits laid, 24 per cent were taken. The London, Midland and Scottish Railway Company laid 2,486 baits; 72 per cent of these were taken, eleven dead rats were found.

Special efforts during this week were made by the Birmingham Co-operative Society, Limited, Birmingham Canal Navigations, Fellows, Morton and Clayton, Limited, and the Grand Union Canal Company, and while no figures are available as to the actual number of baits laid and taken and rats killed, each of these companies state that their efforts met with considerable success.

Supervision of Shops

There are some 27,000 shops in the city area and four inspectors are employed whole-time to carry out the work of inspection in relation to the undermentioned Acts :

Shops Act, 1912.

Shops (Hours of Closing) Act, 1928.

Shops Act, 1934.

Shops Act, 1936.

Butchers' Closing Order, 1921.

Hairdressers' and Barbers' Shops (Sunday Closing) Act, 1930.

Shops (Sunday Trading Restriction) Act, 1936.

Retail Meat Dealers' Shops (Sunday Closing) Act, 1936.

Closing Orders under the Shops Act, 1912, apply to hay and straw dealers, corn dealers and seedsmen, and pawnbrokers, who are required to close their shops for a half-holiday on a specified day in each week, Wednesday or Saturday being the day selected. The Butchers' Closing Order requires these traders to close their shops at 7 p.m. each night except Friday, when they may remain open until 8 p.m.

Exemption Orders in force are those relating to grocers' shops and photographic studios, which are not required to close for a weekly half-holiday.

The work of the inspectors is summarised as follows :

NUMBER OF VISITS PAID

General Inspection visits	6,703
General Inspection re-visits	4,823
<i>Special Visits regarding :</i>	
Night closing of shops (1928 Act)	940
Half-day closing of shops (1912 Act)	707
Appointments <i>re</i> 1934 Shops Act	453
Number of streets patrolled by day (1912 Act)	1,358
Number of streets patrolled by night (1928 Act)	2,332
Sunday patrol (Hairdressers) (1930 Act)	1,322
Sunday patrol (Sunday Trading Act, 1936, from May, 1937)	3,784
Patrol (Butchers' Closing Order, 1921)	689
TOTAL	23,111

OFFENCES REPORTED, ETC.

Early Closing Notices not exhibited (1912 Act)	718
Assistants' Weekly Half-holiday Notice not exhibited (1912 Act)	416
Young Persons Notice not exhibited, Form H (1934 Act)	448
Young Persons Notice not exhibited, Form J (1934 Act)	27
Young Persons Notice not exhibited, Form F (1934 Act)	460
Not providing seats for Shop Assistants (1912 Act)	59
Not exhibiting Form K (seating accommodation) (1934 Act)	363
Number of shops not exhibiting Form G (overtime) (1934 Act)	2
Exempted Trades Notices not exhibited (1912 Act)	682
Not closing to time (evenings) (1928 Act)	402
Not closing to time (half-day) (1912 Act)	123
To provide w.c. accommodation (1934 Act)	21
To provide suitable ventilation	6
To provide suitable heating	2
To provide accommodation for meals	21
To provide washing facilities	20
Mess Rooms to be cleansed	24
Nuisances reported	134
Summonses issued	223
Summonses withdrawn	4
TOTAL	4,155

During the year proceedings were taken against 223 shopkeepers as a result of contravention of the Shops Acts and Closing Orders. Fines were imposed in 219 cases and four cases were withdrawn.

Proceedings were taken against seven butchers for keeping their premises open after the hours permitted in the Closing Order (1921) and fines up to £2 imposed.

One hundred and ninety shopkeepers were prosecuted under the Shops (Hours of Closing) Act, 1928, for the sale of prohibited articles at a time when the premises were legally open for the sale of exempted goods, and fines ranging from 10s. to £3 imposed.

Seven retail meat dealers were prosecuted under the Retail Meat Dealers' Shops (Sunday Closing) Act, 1936, which came into operation on 1st January, 1937, fines ranging from £1 to £2 being imposed.

The Shops (Sunday Trading Restriction) Act, 1936, came into force in May, 1937, requiring shops, with certain exceptions, to close on Sunday. These exceptions are specified either in the First Schedule as permanently exempt from the closing regulations; or on the Second Schedule as exempted until the first Sunday in February, 1938. The general observance of this Act by shopkeepers has been satisfactory. The small general type of shop, however, selling classes of goods, some of which are exempted under the First Schedule, while others are not, have created some degree of difficulty in the administration of the Act. In a number of cases it was necessary to issue warnings for contravention either by sales or by failure to exhibit the notices required when the shop is open for the sale of exempted goods. Proceedings were taken against fifteen shopkeepers, after warning had been given, and fines up to £1 were imposed.

Smoke Abatement

Industrial activity in the many manufacturing and specialised trade processes carried on in the city has been maintained throughout the year. Economic conditions governing the supply and demand of fuel, also the keeping of production costs down to a minimum with the use of a low grade type of fuel, have resulted in increased pollution by smoke, ash, soot and grit.

The Legislation Governing Smoke Emission

The Birmingham Corporation Acts and Bye-laws comprise the legislation employed in dealing with excessive smoke emissions.

The repeal of the clause exempting " brick kilns which are fed with fuel otherwise than from above " has resulted in additional inspectional and advisory work.

The Public Health Act, 1936, gives additional scope for smoke abatement to be carried out efficiently, and although the defence of best prac-

tical means still pertains in respect of emissions other than black smoke, this should not act as a deterrent, but as an incentive, to prove that the combustion of fuel can be carried out with a minimum of smoke emission.

Industrial Smoke—Boiler Plants

Steam generators, where load and conditions vary, are constant offenders, especially under hand-firing conditions. In large works, anticipation of such loads is beyond human nature, and the fundamental principles of combustion break down, with resultant smoke emissions. The installation of steam accumulators is rarely met with, and unfortunately the excuse invariably put forward is neglect on the part of the stoker.

Metallurgical Furnaces

Modern manufacturing processes carried out in steel and non-ferrous industries call for scientifically designed furnaces when using raw coal as fuel for heat treatment. Several large firms have converted their oil fuel installation back to coal fired furnaces, mainly for economic reasons. In several instances automatic stokers for this work have been fitted and are working satisfactorily.

Grit Emissions from Industrial Plant

Numerous complaints and observations show that the weeks preceding the Easter, August and Christmas holiday periods are the dates when the maximum amount of pollution from grit takes place. This is due not only to the use of low grade fuel and forced draught, but to the building up of flue dust and grit in the flues prior to the usual boiler and flue cleaning periods which are arranged for during those days on which the plant is shut down.

Domestic Smoke

Improvement in grate design, the modern adaptability of gas and electrical appliances and the use of smokeless fuel, all help towards the reduction of domestic smoke. The use of gas coke in special grates is making headway. If, in the planning of the modern home a double coal bunker were constructed, one half for coal and the other for smokeless fuel or coke, the inconvenience of storage would be overcome.

The burning of garden refuse gives rise to more domestic difference than any other cause. The enjoyment of unpolluted air and light should be recognised by every citizen and by the use of care and thoughtfulness the disposal of garden refuse can be carried out without causing inconvenience or harm to the neighbourhood.

The following table sets out particulars of observations on chimneys other than those of private houses :

	1937.	1936.	1935.	1934.	1933.
Total number of observations	7,734	5,537	5,096	5,127	5,784
<i>Reports to Public Health Committee on Excessive Smoke Emissions :</i>					
Black smoke from boiler plants	74	69	104	71	88
Black smoke from boilers and furnaces	3	13	12	8	12
Black smoke from metallurgical furnaces	12	16	28	22	24
Excessive Grit emissions	1	3	3	1	—
Excessive emissions other than black smoke	29	37	—	—	—
Total number of excessive emissions ..	119	138	147	102	124
Number of Prosecutions	7	12	14	4	4
Number of Convictions	7	12	14	4	4

Twenty-nine notices have been served under the Public Health Act, 1875, and the Public Health (Smoke Abatement) Act, 1926, and the Public Health Act, 1936, which consolidates the previous enactments relating to smoke emissions. In one case a magistrate's order was obtained before a nuisance of dense smoke from a melting cupola furnace was abated.

Noise

The complaints which have been received may be divided into two classes, viz., those which refer to noise caused in industrial premises and those which relate to domestic matters.

The principal causes of noise in industry have been drop forge hammers, stamping, pressing or metal rolling machines, brick and stone crushing plant, and "barrelling" machines. In the domestic section, the noise nuisance complained of has been due to the maladjustment or inappropriate positions of wireless receivers of the radiogram type.

During the year seventy-nine complaints of noise caused in industrial premises and four complaints relating to excessive noise from wireless sets have been investigated. It has not been possible to achieve in every case of complaint against industry complete, or even partial, removal of the offending noise. This has been due to the fact that in the case of certain machinery, e.g., drop forge hammers—no practical means of preventing the noise appears to be possible. In every instance the managements of the industrial premises concerned have been most helpful, and remedies have been effected where possible. With regard to the nuisances caused by wireless sets, tactful approach has resulted in modifications being undertaken which have satisfied the complainants.

Vibration

This nuisance is associated with complaints of noise and nineteen cases have been investigated during the year. The cause in five cases was due to heavy machinery and the appropriate remedies have not yet been found. In the remaining fourteen cases, the causes were of a nature which allowed remedial measures to be applied with success, e.g., the rearrangement of the mounting of an electric motor fixed to a party wall between factory and domestic premises.

With regard to vibration caused by heavy machinery, investigations are being carried out on offending plant. This includes the construction of foundations and methods of anchorage in relation to the industrial process being carried out; the geological formations in which such machinery is mounted; and the effects of noise and vibration on the community, this last being the most difficult matter to assess.

Fumes

Sixty-six complaints of nuisance from fumes were investigated during the year. These included fumes caused by non-ferrous casting, acid fumes from pickling vats, escapes of carbon monoxide, etc.

In a number of these the investigations and remedies were carried out in association with H.M. Inspector of Factories or H.M. Inspector of Alkali Works.

Advice on the remedies to be applied to remove obnoxious odours has been given as regards seven cases.

Dust

This form of atmospheric pollution appears to be increasing. Twenty-five cases were investigated during the year, and included metallic, wood and enamel dusts and dust caused by stone and brick crushing.

With regard to stone and brick crushing, the remedy applied has been water spraying at the point of actual crushing, together with proper housing of the plant. In all other cases successful remedial measures were applied, with the exception of fumes occasioned by casting and metal pouring processes.

Swimming Baths and Pools

Close supervision of the following swimming baths has been continued :

	<i>Premises.</i>	<i>No. of Baths</i>
Corporation indoor swimming baths	15	23
Corporation open-air baths	2	2
Education Department	2	2
Home Office schools	2	2
Business firms	1	2
TOTALS	22	31

The monthly bacteriological examination of samples has been recently supplemented by a chemical investigation of the amount of free and available chlorine to test the degree of conformity with the Model Bye-laws, 1936, and to act as an official check upon the routine testing carried out by the officials in charge at the various premises.

The bacteriological results have maintained a good standard, and indicate the efficiency of mechanical treatment of swimming bath water, when care is exercised in the handling of the sterilisation plant.

I am informed by the General Manager and Secretary of the Baths Department that the following baths are maintained by the emptying and refilling process :

Open-air Baths—

- Cannon Hill Park.
- Victoria Park (Small Heath).

Covered Baths—

- Northwood Street.
- Tiverton Road.

With the above exceptions, where the emptying and refilling process operates in conjunction with the use of chlorine, the water of the remaining swimming baths, totalling twenty-one, is maintained by mechanical filtration and sterilised by chlorine or chloramine.

The question of the introduction of bye-laws dealing with private bathing pools came under consideration towards the end of the year, and is being discussed jointly with officials of the Baths Department.

Eradication of Bed Bugs

Infested houses are liberally sprayed with an insecticide. Before infested furniture is removed from slum dwellings to new Corporation houses it is collected in specially made vans and treated with H.C.N. gas ; 981 homes of furniture were so treated during 1937. This collection and treatment is carried out by the Local Authority.

The Estates Department have fifteen women visitors engaged on house-to-house visitation ; part of their duties consists in the inspection of the tenant's furniture, and in particular bedding, as well as a general inspection of the house itself. In all cases where vermin is found the matter is brought to the notice of the tenant by the visitor, who points out the methods which they must take to get rid of the vermin and also prevent a recurrence.

Number of council houses infested	814
Number of council houses disinfested	814
Number of other houses found to be infested	1696
Number of other houses disinfested	113

Disinfestation of Household Goods

In November, 1937, a hydrocyanic acid gas plant for the disinfestation of household goods prior to their removal to Corporation houses was

installed in the grounds of the Little Bromwich Isolation Hospital. This plant is similar to the one installed at Bacchus Road Station in May, 1936, and is capable of dealing with a like number of removals.

Disinfection

The following table gives details of the work done during 1937 :

Houses disinfected after small-pox	—
Houses disinfected after scarlet fever	61
Houses disinfected after diphtheria	1,861
Houses disinfected after enteric fever	15
Houses disinfected after tuberculosis	1,731
Houses disinfected after cancer (on request)	112
Houses disinfected after miscellaneous diseases (on request) ..	731
Beds disinfected	3,201
Miscellaneous articles of clothing and bedding	43,338
Library books disinfected	1,450
Public conveyances disinfected	4

Mortuary—Summer Lane

This building, provided by the generosity of Mr. and Mrs. T. Sidney Walker in 1931, and handed over to the Public Health and Maternity and Child Welfare Committee in 1934, has continued to serve the Summer Lane area as a means of providing a resting place to which the dead could be brought and remain until the time for burial, instead of being kept in small houses with living relatives. During the year 1937 the building was used for the temporary reception of the dead on forty-three occasions.

Royal Sanitary Institute Congress in Birmingham

In July, 1937, the Congress of the Royal Sanitary Institute was held in Birmingham. The Congress was amongst the most successful held by that body, and the attendance was larger than at any of its previous congresses. The exhibition in connection with the Congress was held in the Bingley Hall, the general public meetings were in the Town Hall, while sessional meetings were held in the Midland Institute, the University lecture theatres, etc. The Lord Mayor and Lady Mayoress, Alderman and Mrs. Roberts, graciously entertained the delegates at an evening reception in the Council House. Delegates also attended an afternoon reception and tea held later in the week at the Botanical Gardens. Besides the technical sessions held on each morning in each of a number of sections of the Congress, afternoon programmes were provided of visits to works or premises of scientific interest, as well as of many outings to places of scenic or historic attraction.

There can be no doubt that the Birmingham Congress proved to be a most successful one, both from its scientific and from its social aspects.

SECTION D

Housing

SECTION D

HOUSING

New Houses

Data received from the City Engineer and Surveyor show that 2,643 houses were built by the municipality and 7,662 by private enterprise during 1937. The houses built by the Corporation are for the working-class, while those built privately have generally been of a larger type. The houses built year by year since 1920 are shown in the subjoined statement:

<i>Year.</i>	<i>No. of Houses Erected.</i>		<i>Total.</i>
	<i>By Private Enterprise.</i>	<i>By Corporation.</i>	
1920	244	553	797
1921	426	970	1396
1922	382	810	1192
1923	556	1621	2177
1924	1201	1992	3193
1925	1774	3215	4989
1926	1775	5159	6934
1927	2445	4007	6452
1928	1487	3505	4992
1929	2456	4359	6815
1930	1738	6715	8453
1931	1983	3919	5902
1932	2159	1737	3896
1933	3028	2029	5057
1934	4226	837	5063
1935	6265	985	7250
1936	6926	2285	9211
1937	7662	2643	10305
TOTALS ..	46733	47341	94074

The wards in which new houses have been built in 1937 are indicated below:

Ward.	No. of Houses Erected.		Total.
	By Private Enterprise.	By Corporation.	
CENTRAL WARDS :			
St. Paul's	—	—	—
St. Mary's	10	—	10
Duddeston and Nechells	—	—	—
St. Bartholomew's	—	—	—
St. Martin's and Deritend.....	—	—	—
Market Hall	—	—	—
Ladywood	15	—	15
TOTALS	25	—	25
MIDDLE RING :			
Lozells	—	—	—
Aston	—	—	—
Washwood Heath	428	—	428
Saltley	9	—	9
Small Heath	2	—	2
Sparkbrook	—	—	—
Balsall Heath	9	—	9
Edgbaston	54	—	54
Rotton Park	2	—	2
All Saints.....	—	—	—
TOTALS	504	—	504
OUTER RING :			
Soho	42	20	62
Sandwell	61	—	61
Handsworth	249	—	249
Perry Barr	2,049	693	2,742
Erdington	104	41	145
Gravelly Hill	71	—	71
Bromford	133	150	283
Stechford	831	1,009	1,840
Yardley	498	—	498
Acock's Green	9	36	45
Hall Green	470	—	470
Sparkhill	83	48	131
Moseley and King's Heath	300	4	304
Selly Oak	222	421	643
King's Norton	493	—	493
Northfield	819	106	925
Harborne	699	115	814
TOTALS	7,133	2,643	9,776
GRAND TOTALS	7,662	2,643	10,305

The following statement shows the number of new houses built in the three groups of wards since 1920 :

<i>Groups of Wards.</i>	<i>No. of Houses Erected.</i>		<i>Total.</i>
	<i>By Private Enterprise.</i>	<i>By Corporation.</i>	
Central Wards	67	413	480
Middle Ring	3,753	5,960	9,713
Outer Ring	42,913	40,968	83,881
TOTALS FOR CITY.....	46,733	47,341	94,074

Number of Existing Houses

From a return prepared by the Rates Department of the City Treasurer's Department it appears that on April 1st, 1938, there were 264,723 dwelling-houses and 18,023 shops with dwelling-houses attached in the city. Some idea of the relative size of the dwelling-houses may be gathered from the assessments for rating purposes, which were as follows :

<i>Assessment.</i>	<i>No. of Dwelling Houses.</i>
Up to and including £5	4,040
Over £5 and up to £10	115,606
Over £10 and up to £15	66,402
Over £15 and up to £20	43,435
Over £20 and up to £50	31,853
Over £50 and up to £100	3,085
Over £100.....	302

As at the 31st December, 1937, official representations in respect of 8,571 houses had been submitted to the local authority since the passing of the Housing Act, 1930. Of these, 2,843 were in respect of individual houses or blocks of houses not large enough to merit area action, and 5,728 were dealt with as clearance or improvement areas.

Of the 2,046 houses included in clearance areas during 1937, 1,083 were dealt with by way of Clearance Orders and 963 by way of Compulsory Purchase Orders. In only one case was a Compulsory Purchase Order confirmed during 1937, this being the Hunter's Vale Compulsory Purchase Order comprising four houses.

The resolution of the General Purposes Committee mentioned in the Annual Report for 1936 was approved by the City Council on the 5th

January, 1937, and clearance action under Sections 11 and 25 of the Housing Act, 1936, was resumed in accordance with the programme previously outlined.

Rehousing operations are now proceeding normally, and except in a few isolated instances the houses dealt with have been vacated without recourse to action in the courts for possession. Most of the houses provided in connection with clearance operations are of the self-contained type, and the various housing estates are well distributed over the Middle and Outer Rings of the city. The erection of a block of three-storey flats on the land covered by the Emily Street Housing Compulsory Purchase Order was commenced during the year. When this operation is completed accommodation will be available for 247 families on this site.

As the time which must elapse between the date of representation and the making of the corresponding Order is necessarily substantial, there is every prospect that the supply of houses will be adequate to meet the needs arising from clearance operations.

Whilst most of the clearance operations initiated during the year have been in respect of properties situated in a ring from one-half to one mile from the city centre, an examination of the conditions existing in King's Norton, nearly five miles from the city centre, revealed that a substantial number of dwellings in King's Norton village were unfit for human habitation. Very careful consideration was given to the problems thus raised. Many of the houses affected were some hundreds of years old, and groups of the houses, particularly those abutting on King's Norton village green, had a pleasing old-world aspect. It was found, however, that in very few cases could the defects be dealt with by way of action under Section 9; recourse had, therefore, to be had to action under Section 25, and in June, 1937, the City Council, after accepting official representations in respect of the various clearance areas, ordered the making of clearance orders.

The survey of a large area in the Duddleston and Nechells districts of the city was completed during the year, and it was found that in respect of this area the conditions set out under Section 34 of the Housing Act, 1936, as necessary precedents to the declaration of a proposed redevelopment area, had been adequately established. By direct negotiation between the Departments and Committees concerned, and after report to the Standing Joint Housing Conference, a boundary was finally determined so as to define an area, comprising a substantial proportion of dwelling house property which even without action under a redevelopment scheme would have had to be demolished in pursuance of the programme of slum clearance, and which would equally well lend itself to satisfactory development as an integral part of the scheme of development for the city as a whole. On December 14th the Council declared the area so affected to be a proposed redevelopment area and instructions were given for the preparation of a redevelopment plan.

A marked feature of this area is that within the larger boundary there are a large number of areas which are otherwise appropriate for treatment as clearance areas. The properties comprising some of these smaller areas are in an advanced stage of deterioration. As a result of reports to this effect the City Council, immediately before passing the resolution declaring the Duddeston and Nechells Area to be a redevelopment area, also declared certain areas to be clearance areas within the meaning of Section 25 of the Housing Act, 1936, and recommended compulsory purchase of those areas in accordance with the provisions of the Housing Acts. Areas other than those so dealt with will, in the event of there being any delay in the preparation of the redevelopment plan, have to be treated similarly as it is undesirable that the houses in these areas should continue in occupation in their present condition.

Statistics relating to the Duddeston and Nechells Redevelopment Area are as follows :

Area	275 acres.
Total number of dwelling-houses	6,877
Number of houses unfit for human habitation or overcrowded or congested	5,268

From these figures it will be seen that the area is substantial in extent. An adequate scheme of redevelopment of this area would have a marked effect on the planning and development of the city as a whole, and in order that any such scheme, which will necessarily involve very considerable financial commitments, may be in the most desirable form, full examination of the possible alternative methods of development is now being carried out by the City Engineer and Surveyor, who will in due course report his recommendations to the local authority as a basis for the redevelopment plan which will be published in accordance with the provisions of the Housing Acts, and which will be brought to the knowledge of all owners affected by written notice.

Continued experience of operations under the Housing Act, 1936, did not disclose any unexpected difficulties. Only one formal application for approval of a scheme of work of reconstruction and improvement under Section 55 of that Act was received by the local authority in respect of a small isolated block of houses, and works in pursuance of that scheme are now being carried out.

Overcrowding

The results of the survey made during 1935 and 1936 were set out in the report for 1936, and were, of course, reported to the local authority at that time. As the housing needs disclosed by that survey were in addition to the already known needs arising out of slum clearance operations and the general shortage of houses in the city, it was decided to establish under the

name of a "Housing Bureau" an organisation to encourage the fullest utilisation of all the available housing accommodation in the city. To this end the various associations concerned in the management of property were approached and in each case the organisations concerned expressed their willingness to co-operate with the authority in pooling information as to the availability of housing accommodation and in utilising the general pool of information thus obtained in the subsequent letting of houses. The Housing Bureau, under the control of the Estates Committee, was formally established in November, and will commence active operation at the beginning of 1938.

During the year advertisements were inserted in the Press explaining the duties laid upon owners and tenants under Part IV of the Housing Act, 1936, and "permitted numbers" were supplied to all owners who made application for the necessary information. Although in some cases applications for permitted numbers had not been made, there is no reason to anticipate any undue difficulty in this connection as, speaking generally, the desire of property owners appears to be to comply with the law relating to overcrowding, and to this end to co-operate with the Department.

During the year over 47,800 visits were made by officers of the Department in the obtaining of information necessary to supply permitted numbers and in keeping the records of the overcrowding survey up to date. As no housing provision was made during the year for the specific purpose of dealing with overcrowding, it was not thought necessary to revise fully the records of survey and it may be that the figures obtained in March, 1936, may not now be completely accurate, although there does not appear to be any reason to doubt that they are sufficiently correct to form an accurate basis for an assessment of the housing need.

During 1937, 832 new cases of overcrowding were discovered. As against this, 632 cases were known to have been relieved during the year, many of them by reason of slum clearance operations and others due to the normal transfer of families to better and more suitable accommodation. As January 1st, 1938, has been fixed as the "Appointed Day" after which it will be an offence to permit a house to become overcrowded, it is not likely that there will be any substantial increase in overcrowding during 1938, although there will in some degree be an extension in numbers caused by increase in number of members of families.

A record has been kept of all non-municipal houses from which overcrowded families have been moved by the local authority, and it has been arranged that these houses shall be visited in order to prevent their re-crowding.

Action in respect of Individual Dwelling Houses

For detailed information as to the nature of the defects disclosed by inspection reference should be made to page 107. The statement below, set out in the form required by the Ministry of Health, is in respect of the number of houses dealt with under the different statutory provisions relating to dwelling-houses :

1.—INSPECTION OF DWELLING-HOUSES DURING THE YEAR.	
(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	18,968
(b) Number of inspections made for the purpose....	135,736
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	4,889
(b) Number of inspections made for the purpose....	62,235
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation.....	2,582
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	10,032
2.—REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES.	
Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers.....	7,417
3.—ACTION UNDER STATUTORY POWERS DURING THE YEAR.	
A.—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936 :	
(1) Number of dwelling-houses in respect of which notices were served requiring repairs.....	1,942
(2) Number of dwelling-houses which were rendered fit after service of formal notices :	
(a) By owners	438
(b) By Local Authority in default of owners.....	5
B.—Proceedings under Public Health Acts :	
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	2,298
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :	
(a) By owners	2,226
(b) By Local Authority in default of owners.....	12
C.—Proceedings under Sections 11 and 13 of the Housing Act, 1936 :	
(1) Number of dwelling-houses in respect of which Demolition Orders were made	280

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders.....	356
(3) Number of dwelling-houses in respect of which official representations were made	341
(4) Number of dwelling-houses in respect of which undertakings under Section 11 (3) were accepted :	
(a) Not to use in future for human habitation	28
(b) To carry out works to render fit for human habitation.....	13
(5) Number of dwelling-houses rendered fit for human habitation in pursuance of undertakings.....	40
D.—Proceedings under Section 12 of the Housing Act, 1936 :	
(1) Number of parts of buildings or underground rooms in respect of which Closing Orders were made	25
(2) Number of parts of buildings or underground rooms in respect of which Closing Orders were determined, the part of building or room having been rendered fit ..	—
(3) Number of parts of buildings or separate tenements in respect of which official representations were made	31
4.—HOUSING ACT, 1936—PART IV : OVERCROWDING.	
A.—(1) Number of houses estimated to be overcrowded at the end of the year 1937	8,601
(2) Number of persons dwelling therein	53,159
B.—Number of new cases of overcrowding reported during the year 1937.....	832
C.—(1) Number of cases of overcrowding known to have been relieved during the year.....	632
(2) Number of persons concerned in such cases.....	4,391
D.—Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	No figures available

Action in respect of Clearance Areas

The following table shows briefly, as at December 31st, 1937, the position with regard to Orders made in respect of clearance areas :

<i>Title of Order.</i>	<i>Date of Representation.</i>	<i>Date of Council Resolution.</i>	<i>Date of Confirmation of Order.</i>	<i>Number of Houses in Clearance Area.</i>
Moseley Street C.O.	12/11/35	7/ 4/36	21/ 1/37	18
Park Road, Hockley, C.O.	28/11/35	4/ 2/36	21/ 1/37	6
Regent Place, St. Paul's, C.O.	28/11/35	4/ 2/36	21/ 1/37	8
Harding Street C.O.	28/11/35	4/ 2/36	21/ 1/37	9
Charles Henry Street C.O.	21/12/35	5/ 1/37	21/12/37	50
Lower Darwin Street C.O.	21/12/35	5/ 1/37	21/12/37	38
Lombard Street C.O.	21/12/35	5/ 1/37	21/12/37	9
Moseley Road C.O.	2/ 1/36	7/ 4/36	21/ 1/37	14
Warwick Street C.O., No. 1	2/ 1/36	7/ 4/36	21/ 1/37	83
Warwick Street C.O., No. 2	2/ 1/36	7/ 4/36	21/ 1/37	27

(Table continued on following page.)

<i>Title of Order.</i>	<i>Date of Repre- sentation.</i>	<i>Date of Council Resolution.</i>	<i>Date of Con- firmation of Order.</i>	<i>Number of Houses in Clearance Area.</i>
Hunter's Vale C.P.O., 1936.....	18/ 2/36	7/ 4/36	21/ 1/37	4
High Street, Deritend, C.O.	15/12/36	5/ 1/37	21/12/37	18
Court 7, Digbeth, C.O.	15/12/36	5/ 1/37	7/10/37	17
Crocketts Road, Handsworth, C.O.....	15/12/36	5/ 1/37	7/10/37	12
Bordesley Street C.O.	15/12/36	9/ 3/37	21/12/37	29
Little Ann Street, No. 1, C.O.	15/12/36	9/ 3/37	7/10/37	4
Little Ann Street, No. 2, C.O.	15/12/36	9/ 3/37	7/10/37	4
Floodgate Street C.O.	15/12/36	9/ 3/37	21/12/37	6
Oxford Street C.O., No. 1	15/12/36	9/ 3/37	7/10/37	10
Oxford Street C.O., No. 2	15/12/36	9/ 3/37	7/10/37	9
Barn Street C.O., No. 1.....	15/12/36	9/ 3/37	21/12/37	30
Barn Street C.O., No. 2.....	15/12/36	9/ 3/37	7/10/37	23
Barn Street C.O., No. 3.....	15/12/36	9/ 3/37	21/12/37	31
Barn Street C.O., No. 4.....	15/12/36	9/ 3/37	7/10/37	21
Cardigan Street C.O., No. 1	15/12/36	9/ 3/37	21/12/37	94
Cardigan Street C.O., No. 2	15/12/36	9/ 3/37	21/12/37	28
Cardigan Street C.O., No. 3	15/12/36	9/ 3/37	21/12/37	6
Cardigan Street C.O., No. 4	15/12/36	9/ 3/37	21/12/37	26
Pickford Street C.O., No. 1	15/12/36	9/ 3/37	21/12/37	24
Pickford Street C.O., No. 2	15/12/36	9/ 3/37	21/12/37	27
Pickford Street C.O., No. 3	15/12/36	9/ 3/37	21/12/37	21
Bagot Street C.O.	5/ 2/37	9/ 3/37	*	19
Moreton Street C.O.	5/ 2/37	9/ 3/37	*	25
Carver Street C.O.	5/ 2/37	9/ 3/37	*	9
Pope Street C.O.	5/ 2/37	9/ 3/37	*	8
Queen's Head Road C.O.	5/ 2/37	8/ 6/37	Confirmation Order not received during 1937	8
Herbert Road C.O.	5/ 2/37	8/ 6/37		18
Cooksey Road C.O.	5/ 2/37	8/ 6/37		24
Green Lane, Small Heath, C.P.O.	5/ 2/37	8/ 6/37		4
Talfourd Street C.P.O., No. 1	5/ 2/37	8/ 6/37		73
Talfourd Street C.P.O., No. 2	5/ 2/37	8/ 6/37		8
Highgate Street C.O.	5/ 2/37	8/ 6/37		3
Belgrave Road C.O.	5/ 2/37	8/ 6/37		4
Hick Street C.O.	5/ 2/37	8/ 6/37		31
Moseley Street C.O.	5/ 2/37	8/ 6/37		7
Alcester Street C.O.	5/ 2/37	8/ 6/37		18
Parliament Street C.O., No. 1	5/ 2/37	8/ 6/37		12
Parliament Street C.O., No. 2	5/ 2/37	8/ 6/37		12
Herbert Road C.P.O.	5/ 2/37	8/ 6/37		77
Bromford Lane, Erdington, C.O.	12/ 4/37	8/ 6/37		13
Wharf Road, King's Norton, C.O., No. 1 ..	12/ 4/37	8/ 6/37		2
Wharf Road, King's Norton, C.O., No. 2 ..	12/ 4/37	8/ 6/37		7
Wharf Road, King's Norton, C.O., No. 3 ..	12/ 4/37	8/ 6/37		4
Wharf Road, King's Norton, C.O., No. 4 ..	12/ 4/37	8/ 6/37		2
Masshouse Lane, King's Norton, C.O.	12/ 4/37	8/ 6/37		20
The Green, King's Norton, C.O., No. 1 ..	12/ 4/37	8/ 6/37		4
The Green, King's Norton, C.O., No. 2 ..	12/ 4/37	8/ 6/37		6
The Green, King's Norton, C.O., No. 3 ..	12/ 4/37	8/ 6/37		2
The Green, King's Norton, C.O., No. 4 ..	12/ 4/37	8/ 6/37		20
The Green, King's Norton, C.O., No. 5 ..	12/ 4/37	8/ 6/37		10

*Property owned by Corporation.

(Table continued on following page)

<i>Title of Order.</i>	<i>Date of Repre- sentation.</i>	<i>Date of Council Resolution.</i>	<i>Date of Con- firmation of Order.</i>	<i>Number of Houses in Clearance Area.</i>
The Green, King's Norton, C.O., No. 6 ..	12/ 4/37	8/ 6/37	Confirma-	3
The Green, King's Norton, C.O., No. 7 ..	12/ 4/37	8/ 6/37	tion	3
The Green, King's Norton, C.O., No. 8 ..	12/ 4/37	8/ 6/37	Order not	9
Park Road, Hockley, C.O.	3/ 5/37	8/ 6/37	received	4
Heneage Street C.O.	12/ 7/37	27/ 7/37	during	18
Queen's Head, Yardley, C.O.	22/ 6/37	9/11/37	1937.	6
Pool Lane, Yardley, C.O.	22/ 6/37	9/11/37	"	3
Duddeston Row C.O.	5/ 2/37	9/11/37	"	10
Coventry Road C.O.	26/ 2/37	9/11/37	"	8
Mount Pleasant C.P.O.	26/ 2/37	9/11/37	"	8
Bordesley Park Road C.P.O.	26/ 2/37	9/11/37	"	106
Miles Street C.P.O., No. 1	26/ 2/37	9/11/37	"	123
Miles Street C.P.O., No. 2	26/ 2/37	9/11/37	"	130
Richard Street C.P.O., No. 1.....	4/10/37	14/12/37	"	13
Richard Street C.O.	4/10/37	14/12/37	"	13
Richard Street C.P.O., No. 2	4/10/37	14/12/37	"	71
Richard Street C.P.O., No. 3	4/10/37	14/12/37	"	7
Richard Street C.P.O., No. 4	4/10/37	14/12/37	"	31
Lord Street C.P.O., No. 1	4/10/37	14/12/37	"	20
Lord Street C.P.O., No. 2	4/10/37	14/12/37	"	6
Dartmouth Street C.P.O., No. 1	4/10/37	14/12/37	"	59
Dartmouth Street C.P.O., No. 2	4/10/37	14/12/37	"	26
Adams Street C.P.O., No. 1	4/10/37	14/12/37	"	2
Adams Street C.P.O., No. 2	4/10/37	14/12/37	"	2
Great Francis Street C.P.O.	4/10/37	14/12/37	"	34
Rowland Street C.P.O.....	4/10/37	14/12/17	"	12
Vauxhall Road C.P.O.	4/10/37	14/12/37	"	7
Lawley Street C.P.O.	4/10/37	14/12/37	"	92
Garland Street C.O., No. 1.....	11/10/37	Not yet	"	25
Garland Street C.O., No. 2.....	11/10/37	made.	"	2
Garrison Lane C.O.	11/10/37	"	"	3
Garrison Street C.O., No. 1	11/10/37	"	"	35
Garrison Street C.O., No. 2	11/10/37	"	"	130
Garrison Street C.O., No. 3	11/10/37	"	"	8
Landor Street C.O., No. 1	11/10/37	"	"	71
Landor Street C.O., No. 2	11/10/37	"	"	3
Summer Lane C.O., No. 1	10/ 5/37	"	"	24
Summer Lane C.O., No. 2	10/ 5/37	"	"	13
Brearley Street C.O., No. 1	10/ 5/37	"	"	21
Brearley Street C.O., No. 2	10/ 5/37	"	"	4
Hatchett Street C.O., No. 1	10/ 5/37	"	"	85
Hatchett Street C.O., No. 2	10/ 5/37	"	"	55
Blews Street C.O., No. 1	10/ 5/37	"	"	46
Blews Street C.O., No. 2	10/ 5/37	"	"	69
Brewery Street C.O.	10/ 5/37	"	"	28
Newtown Row C.O.	10/ 5/37	"	"	45
Lower Tower Street C.O., No. 1.....	10/ 5/37	"	"	28
Lower Tower Street C.O., No. 2.....	10/ 5/37	"	"	19
Frankfort Street C.P.O.	10/ 5/37	"	"	56
TOTAL DURING 1937: 78 Areas, 81 Orders.....				2046
TOTAL TO DECEMBER 31st, 1936: 125 Areas, 102 Orders.....				3533
GRAND TOTAL TO DECEMBER 31st, 1937: 203 Areas, 183 Orders ..				5579

SECTION E.

**Inspection and Supervision
of Food**

SECTION E.

INSPECTION AND SUPERVISION OF FOOD

Food Premises

As required by Section 72 of the Public Health Act, 1925, the inspection of retail food premises has been continued. Various defects were found and some new practices noted, but in all cases the proprietors of the premises concerned gave ready co-operation in removing objections and applying remedies.

Sixty-eight "eating houses" were added to the register required by Section 54 of the Birmingham Corporation Act, 1935, and eighteen "transfer registrations" were made during the year.

A systematic inspection of all public-houses in the city was commenced towards the end of the year. These visits were carried out both during "open" and "closed" hours and were complementary to the supervision exercised by the justices. They were intended to afford information in particular on the methods adopted by managers of licensed premises in the service in the public rooms and behind the service counters. The information which is being obtained is likely to afford a basis for a uniform and satisfactory standard of practice. It may be added that while defects have been noted in some instances, many licensed premises have been found to be admirably conducted in respect of the cleanly service of the public.

Ice Cream

The registration of premises used for the manufacture and sale of ice cream and of persons trading as manufacturers or vendors of, or merchants or dealers in, this food as required by Section 54 of the Birmingham Corporation Act, 1935, has been maintained. The following table gives details of the registrations approved during the year, the cancellations from the register and the totals of persons and premises on the register at the end of the year.

Registration of premises for the manufacture of ice cream	90
Registration of premises for the sale of ice cream.....	228
Transfer registration of premises for the manufacture of ice cream.	37
Transfer registration of premises for the sale of ice cream	57
Registration of persons as manufacturers of ice cream.....	110
Registration of persons as vendors of ice cream	276
Transfer registration of persons as manufacturers of ice cream....	—
Transfer registration of persons as vendors of ice cream	1
Total registrations effected	504

Table continued on following page.

Total transfer registrations effected.....	58
Cancellations of registrations of persons and premises for the manufacture of ice cream	144
Cancellations of registrations of persons and premises for the sale of ice cream	201
Total number of persons and premises registered for the manufacture of ice cream	794
Total number of persons and premises registered for the sale of ice cream	1,348

Systematic analyses and bacteriological examinations have been carried out on samples taken from manufacturers and vendors of ice cream, and the results so obtained have been utilised for purposes of discussion between members of the trade concerned and inspectors of the Department. As a result a number of improvements on methods of manufacture and in the premises used for the manufacture and sale of ice cream have been carried out. The great majority of persons in the trade have co-operated to improve the conditions of manufacture and sale of ice cream, with satisfactory results.

Milk and Dairies Administration

The Public Health Committee is responsible for the supervision of all dairy premises and milk shops in the city area and of the conditions under which milk is handled therein. The Markets and Fairs Committee supervise all matters relating to the health of cows and the condition of cowsheds.

During the year the work of the milk and dairies inspectors was reorganised to include the supervision of the manufacture and sale of ice cream, and to allow of the more rapid application of the Milk and Dairies Acts and Orders. This has resulted in much effective work being carried out, and the year was spent in giving practical advice to dairymen on the handling and care of milk and milk products and to the reconstruction and improvement of dairy premises. No prosecutions for contraventions of the Acts and Orders were brought to Court, the opportunities being used to promote improvements by discussion rather than by legal proceedings.

It was known that during the latter part of 1936 and in the early months of 1937 it was the practice of certain dairymen to sell as milk a mixture of separated milk and cream. Investigations to determine the extent of this trade were made, but owing to the fact that the appropriate legislation gave no support in the suppression of this practice, no legal action could be taken. It seems probable that in the city area the practice has now ceased.

A table setting out the alterations in the register of dairies, etc., during 1937, and a note on the work done by the dairy inspectors follows. It will be observed that the number of wholesale purveyors of milk continues to decrease, fifteen having given up their businesses during the year ; and as

regards the retail purveyors, 155 have been removed from the register at their own requests for one reason or another. The reduction in the number of shops in which loose milk is sold continues, while the number of shops in which milk is sold in bottles filled and sealed on registered premises has increased by 411. These alterations in the numbers of persons and premises on the register have been due to a variety of causes, which include the increasing demand of the general public for a more efficient service, the policy of the Milk Marketing Board, and the activities of the Board and this Department in requiring a higher standard of efficiency in dairies and milk shops.

MILK AND DAIRIES REGISTER

	1936.	1937.
Number of wholesale purveyors	121	106
Number of retail purveyors	976	821
Number of milkshops	3,226	2,568
Number of bottled milk shops.....	3,065	3,476
Number of bottled milk purveyors.....	41	41
Total number of new registrations issued	376	687
Total number of transfer registrations issued	410	303
Total number of deletions from register	348	376

NUMBER OF VISITS PAID

	1936.	1937.
Milkshops	6,166	6,266
Wholesale purveyors	174	297
Retail purveyors	707	1,036
To pasteurising plants	796	818
Other visits.....	13	4
Unsuccessful visits.....	638	421

DEFECTS FOUND

	1936.	1937.
Painting or limewashing milkshop or store required..	60	220
Sanitary defects	110	93
Other defects	155	192
Notices sent	2	2

Milk (Special Designations) Order, 1936

Principal Licences issued, 1937 :	
Producers of Tuberculin Tested Milk	3
Dealers in Tuberculin Tested Milk	40
Producers of Accredited Milk	22
Dealers in Accredited Milk	47
Producers of Pasteurised Milk	17
Dealers in Pasteurised Milk	185
Supplementary Licences issued, 1937 :	
Dealers in Tuberculin Tested Milk	5
Dealers in Accredited Tested Milk	6
Dealers in Pasteurised Tested Milk	2
TOTAL	327

The year 1936 was a period of transition from the repealed Order of 1923 to the Order of 1936, and, owing to the altered terms of the designations of milk, no direct comparison of the numbers of licences issued under each heading during 1936 and 1937 can be made. In 1937 forty-two licences to produce designated milk were issued as against forty-three in 1936. In 1937 272 principal licences were issued to dealers in designated milk as against 288 in 1936. The reductions in the numbers for 1937 have been due to the acquisition of small businesses by large firms, a change in the distribution of the trade which has been taking place during recent years.

Systematic bacteriological examinations of these designated milks and their containers were carried out, 772 samples being taken for this purpose. Relative to the standards laid down in the Milk (Special Designations) Order, 1936, 30 per cent of samples of tuberculin tested milk and 38 per cent of samples of accredited milk failed to reach the standard, in almost every case due to the presence of bact. coli in 1/100th of a millilitre.

As regards pasteurised milk, 2.4 per cent of samples failed to reach the required standards as contained in the Milk (Special Designations) Order. In addition, 198 samples of pasteurised milk were submitted to the phosphatase test and of these sixty-three, or approximately 32 per cent, failed to pass the test. This latter figure does not give a true indication of the efficiency with which pasteurisation was carried out by the producers of pasteurised milk in the city, because the samples were not taken at random. They included tests carried out to determine the efficiency of newly-installed pasteurising plant, and repeated tests of samples produced by dairymen whose samples had failed to pass the test. The percentages stated are thus weighted with failures as compared with the likely figure which would be obtained from "at random" sampling. On a similar basis in 1936, 43 per cent of samples failed to pass the phosphatase test.

At the request of the Worcestershire County Council the bacteriological examination of designated milks produced in that county and sent into the city for sale was continued during the year.

The Inspection of Cows and Cowsheds within the City Area
Summary of Report by MR. BRENNAN DE VINE, Chief Veterinary Officer.

City Dairies

In connection with milk produced in the city area there are seventy-six dairy farms with 164 sheds housing 1,207 milch cows. During the year 2,162 visits of inspection of cows and cowsheds were made.

The health and cleanliness of the cows in the city dairies generally were good.

In connection with the cleanliness of cows and cowsheds it was necessary to send notices to the owners in fifteen cases with respect to the unclean condition of cows and defects of the cowsheds. In addition, repairs and structural alterations have been carried out in eight registered cowsheds, under instructions and supervision. At one farm the cowsheds are in a dilapidated and insanitary condition and arrangements are being made for new cowsheds to be erected there.

Owing to the extension of the housing estates in the city area, fifteen sheds have been discontinued.

Mastitis

During the year there were eighty-nine cases of cows affected with acute catarrhal mastitis, and the milk produced from such cows was prohibited from sale.

Tuberculosis

In addition to the clinical examination of the dairy cows, bulk samples of milk were taken from each city dairy herd during the year ; also individual samples of milk were taken from suspected cows :

	<i>Taken.</i>	<i>Infected.</i>
Mixed samples from Dairy Herds	121	14
Individual samples	96	13
TOTALS	217	27

Thirty-three cows affected with tuberculosis were removed from city dairy herds during the year. Of the thirty-three cows, thirteen were found, on post-mortem examination, to be affected with tuberculosis of the udder, and twenty showed clinical evidence of tuberculosis.

Examination of Milk coming into the city from outside sources for the presence of Tubercle Bacilli

During the year 2,267 samples of milk were taken at various city milk depots from churns arriving from outside sources :

Source.	Bulk Samples.	Result of Exam.		Percentage Infected.
		Free.	Infected.	
Cheshire	1	1	—	—
Derbyshire	23	19	4	17·4
Gloucestershire	98	96	2	2·0
Herefordshire	52	46	6	11·5
Leicestershire	196	175	21	10·7
Oxfordshire	2	2	—	—
Staffordshire	829	733	96	11·6
Shropshire	158	135	23	14·5
Warwickshire	693	631	62	8·9
Wiltshire	1	1	—	—
Worcestershire	209	191	18	8·6
	2,262	2,030	232	—
Pasteurised	5	5	—	—
TOTAL	2,267	2,035	232	10·2

Note.—The five samples of pasteurised milk were taken for the purpose of checking the efficient working of the pasteurisation plant at various depots.

Milk and Dairies (Consolidation) Act, 1915

Under Section IV of this Act notifications were sent to the medical officers of health of the areas from which 232 infected samples of mixed milk had been sent. The local authorities in the outside areas arranged for the veterinary examination of the cows in the herds supplying the infected milk, and a veterinary inspector from this department attended at the time the inspection of each of the herds was made by the local authorities concerned. During the year 278 visits were paid to the outside areas.

Of the 232 infected bulk supplies, 228 were taken from milk supplied from 226 farms. The farms were visited and 6,232 cows examined, and further milk samples (mixed and individual) taken by the local authorities concerned.

The other four infected bulk samples were taken from a milk depot, the investigation of which involves 250 dairy herds which supply Birmingham with approximately 7,000 gallons of milk daily. The necessary inspections are being carried out, but the results are not to hand at the end of the year.

During the year reports have been received showing that at 165 of the farms visited 217 cows were discovered to be affected with tuberculosis and giving milk containing living tubercle bacilli; these cows were subsequently slaughtered.

In thirty-four cases it was ascertained that cows had either been sold out for slaughter or gone “dry” prior to the visit to the farm by the veterinary inspector; and at the remaining twenty-seven farms the investigations were not completed at 31st December.

Notifications received from outside authorities

(1) Notification was received from the County Medical Officer of Health for Staffordshire :

That a sample of "accredited" milk retailed by a city dairyman and taken by the official sampling officer of Staffordshire had been reported positive to the biological test for tuberculosis. We accordingly took samples from the supplies of all the senders to this particular depot and the results of the examination of the samples showed seven to be infected; the county medical officers of health of the local authorities concerned (Warwickshire and Staffordshire) were accordingly advised and the herds were inspected. In four cases the offending cows were traced and slaughtered under the Tuberculosis Order. In each of the other three cases, where the results of the samples taken at the time of inspection proved negative, it was ascertained that a cow (in milk at the time the original samples were taken) had been sold for slaughter prior to the visits made.

(2) Notification was received from the Medical Officer of Health for Smethwick :

That a sample of milk which originated from a city dairy had been found to be infected. The farm was visited by us, when one cow was dealt with under the Tuberculosis Order and three bulk and six individual samples taken ; one bulk sample proved to be infected. The farm was visited again and a further cow taken under the Tuberculosis Order, also one bulk sample was taken from the remaining three cows whose milk was included in the infected bulk sample. This further bulk sample proved to be "free" and, therefore, we presumed that the source of infection had been removed.

Comparative Return

The following table shows the number of samples of milk sent in from outside sources taken during the past ten years and the percentage infected :

<i>Year.</i>	<i>Samples Taken.</i>	<i>Samples Infected.</i>	<i>Percentage Infected.</i>
1928	974	91	9.3
1929	958	64	6.7
1930	1699	105	6.2
1931	1657	133	8.0
1932	1086	97	8.9
1933	1694	108	6.4
1934	1699	109	6.4
1935	1668	134	8.0
1936	1648	166	10.1
1937	2267	232	10.2
Average for Period			8.0

SUMMARY OF SAMPLES OF MILK (Nos. 3796-6279) TAKEN DURING 1937

	No. Taken.	No. Infected.
<i>From Outside Dairies :</i>		
Pasteurised	5	—
Tuberculin Tested Accredited and Non-Designated	2,262	232
<i>From City Dairies :</i>		
Mixed samples	121	14
Individual samples	96	13
TOTAL	2,484	259

Eradication of Tuberculosis from Dairy Herds supplying milk to the city

Birmingham Corporation Scheme

Under the Birmingham Corporation Scheme for the eradication of tuberculosis from herds supplying milk to the city, the necessary veterinary assistance and tuberculin are given free, subject to certain conditions being complied with. The primary object is that the milk supply of Birmingham shall be as free from infection of tuberculosis as possible.

The double intradermal test with synthetic tuberculin has been used for all herds tested by us during the year.

Eight herds, comprising 449 animals, were in the scheme on the 31st December last.

Herds tested during 1937

The testing of herds which come under the scheme is carried out half-yearly, and the following return gives the number of animals tested during the year :

	<i>Tested.</i>	<i>Passed.</i>	<i>Failed.</i>	<i>Date of entering Scheme.</i>
1	179	163	16	3rd October, 1908.
2	63	61	2	22nd November, 1907.
3	13	13	—	6th January, 1908.
4	275	273	2	3rd October, 1908.
5	88	84	4	1st January, 1934.
6	165	159	6	3rd April, 1935.
7	77	60	17	23rd September, 1936.
8	118	90	28	14th October, 1936.
9	188	188	—	Discontinued.
10	46	46	—	Discontinued.
11	10	10	—	Discontinued.
	1,222	1147=93·9%	75=6·1%	
During 1936 .. }	2,493	2278=91·4%	215=8·6%	

Note.—In the case of Nos. 9, 10 and 11 the owners applied during the year and entered the " Attested " Herd Scheme of the Ministry of Agriculture and Fisheries.

Of seven herds which were in the Birmingham Scheme at the end of 1936, three are now in the Ministry's " Attested " Herd Scheme, and the other four are tested by outside authorities.

Inspection of Slaughterhouses, etc.

The inspection of meat at the public abattoir is now carried out by four veterinary inspectors and six meat inspectors. A fifth veterinary inspector is responsible for the inspection of meat at Montague Street public slaughterhouse, bacon factories and private slaughterhouses in the centre of the city. For the purposes of inspection of shops, food premises and private slaughterhouses, the city is divided into six areas with a district inspector in charge of each. Another inspector is responsible for the inspection of foodstuffs in the fish, fruit and vegetable wholesale markets.

Veterinary examination is regularly made of all animals arriving in the city for slaughter, and of all animals in lairs awaiting slaughter, so that any diseased animal may be isolated and steps taken to prevent the spread of infection to other animals.

In addition to the public slaughterhouses there were, at the 31st December, eighty-six private slaughterhouses in the city area :

Registered Slaughterhouses	48
Annually Licensed Slaughterhouses	38

These private slaughterhouses are regularly visited by the district inspectors.

Of the eighty-six private slaughterhouses in the city area twenty-five are used for the slaughter of pigs only.

Returns of Animals Slaughtered

RETURN OF ANIMALS SLAUGHTERED IN THE PUBLIC SLAUGHTERHOUSES

PUBLIC ABATTOIR, SHERLOCK STREET				
<i>Beasts.</i>	<i>Calves.</i>	<i>Sheep and Lambs.</i>	<i>Pigs.</i>	<i>Total.</i>
47,200	80,151	228,866	68,114	424,331
PUBLIC SLAUGHTERHOUSE, MONTAGUE STREET				
<i>Beasts.</i>	<i>Calves.</i>	<i>Sheep and Lambs.</i>	<i>Pigs.</i>	<i>Total.</i>
4	4	14	4,944	4,966

RETURN OF ANIMALS SLAUGHTERED IN PRIVATE SLAUGHTER- HOUSES

<i>District.</i>	<i>Beasts.</i>	<i>Calves.</i>	<i>Sheep.</i>	<i>Pigs.</i>	<i>Total.</i>
Central	1,061	132	7,923	246,705	255,821
No. 1.—Harborne and Winson Green ..	694	122	6,525	782	8,123
No. 2.—Aston and Perry Barr	1,629	1,168	9,204	11,457	23,458
No. 3.—Saltley and Erdington	1,491	170	7,627	2,164	11,452
No. 4.—Small Heath and Yardley	957	653	7,914	2,096	11,620
No. 5.—Balsall Heath and King's Heath	1,249	255	9,942	1,642	13,088
No. 6.—Selly Oak and Northfield	318	134	3,212	3,816	7,480
TOTAL	7,399	2,634	52,347	268,662	331,042

TOTAL SLAUGHTERED IN CITY

	<i>Beasts.</i>	<i>Calves.</i>	<i>Sheep and Lambs.</i>	<i>Pigs.</i>	<i>Total.</i>
1936.....	56,951	93,637	320,256	402,439	873,283
1937.....	54,603	82,789	281,227	341,720	760,339

These returns show that the average numbers of animals killed per week during 1937 were as follows :

	<i>Beasts.</i>	<i>Calves.</i>	<i>Sheep.</i>	<i>Pigs.</i>	<i>Total.</i>
Public Abattoir, Sherlock Street	908	1,541	4,401	1,310	8,160
Public Slaughterhouse, Montague Street	—	—	—	95	95
Private Slaughterhouses	142	51	1,007	5,166	6,366
TOTAL	1,050	1,592	5,408	6,571	14,621

Return showing the approximate amount and percentage of home-killed and imported meat sold in the city during the year. These figures relate to beef, veal, mutton and lamb, pork and bacon not being included.

	<i>Home Killed. Tons.</i>	<i>Imported. Tons.</i>	<i>Total. Tons.</i>
Beef and Veal	17,456	14,864	32,320
Mutton	5,273	13,542	18,815
	22,729	28,406	51,135
	<i>Percentage of Total.</i>		
	<i>Home Killed.</i>	<i>Imported.</i>	
Beef and Veal	54·0	46·0	
Mutton	28·0	72·0	
	44·4	55·6	

Montague Street Live Pig Market

During the year 147,436 pigs passed through the home market and 57,360 pigs passed through the imported side of the market. All the pigs passed through the imported side were received from Ireland. This shows an increase of 25,039 pigs on the home side of the market and an increase of 26,445 on the imported side, making a total increase of 51,484 as compared with the previous year.

In addition to those pigs which passed through the imported side of Montague Street Market, 14,249 pigs were received direct at certain bacon factories in the city, as compared with 15,409 received in 1936.

Wholesale Fruit, Vegetable and Fish Markets

The food inspection at these markets is in charge of one inspector who attends daily and superintends the sorting of all damaged foodstuffs at the sorting yard at Gloucester Street.

Fish Market: Shell Fish

Origin of Mussels and Oysters exposed for sale in Birmingham

Mussels were received from the following places :

Aber.	King's Lynn.
Aberdovey.	Lytham.
Barmouth.	Oranmore Bay.
Castlemaine Harbour.	Portmadoc.
Conway.	Teignmouth.
Hull.	Wells-next-the-Sea.
Kidwelly.	White Abbey.

Oysters were received from :

Brightlingsea.	Truro.
London.	Whitstable.

Samples of Mussels and Oysters

During the year forty-five samples of mussels were collected and sent for bacteriological examination, and of these eighteen samples were found to be below the standard of cleanliness required.

In addition, fifteen samples of oysters were collected and three of these on bacteriological examination were found to be below the standard of cleanliness required.

In the case of the above unsatisfactory samples, notice was given under the Public Health (Shell Fish) Regulations, 1934, to the following local authorities : Barmouth, Conway, Portmadoc, Teignmouth and Whitstable; and notices were also sent to the Irish Free State authorities in respect of mussels from Castlemaine Harbour and Oranmore Bay.

It is customary in Birmingham and district to sell by retail mussels and oysters in the raw state, and cockles and periwinkles in a cooked state. No samples were taken for bacteriological examination of cockles and periwinkles.

Teignmouth Shell Fish Order

Under powers contained in the Birmingham Corporation Act, 1935, an Order was made prohibiting the sale in Birmingham of shell fish taken from layings at Teignmouth.

Registration of Premises used for the manufacture of Potted Meats, etc.

Food Preparation Premises and Shops

On 31st December there were 190 food preparation premises on our register as follows :

Cooked Meats, etc., Manufacturers.....	121
Sausage and Pork Pie Manufacturers.....	67
Jam Manufacturers	2
TOTAL	190

The following shops in which food is sold were regularly visited :

Beef and Pork Butchers	1,142
Grocers	1,378
Greengrocers	1,375
Hucksters	4,995
Fish Friers	616
Fishmongers.....	664
TOTAL	10,170

Inspections

The following is the number of visits paid by the Inspectors :

Slaughterhouses	10,093
Food Preparation Premises	8,662
Fish Friers	4,460
Beef and Pork Butchers	32,297
Grocers	3,670
Greengrocers and Fishmongers	20,679
Hucksters.....	1,797
Ham and Bacon Curers	5,061
Street Hawkers	24,048
Cold Stores	21,801
TOTAL	132,568

Prosecutions

Legal proceedings were taken in one case under the Public Health Act in respect of diseased meat deposited for sale. This meat was seized; the defendant was prosecuted and fined £5.

Private Slaughterhouses (and Montague Street)

CARCASES INSPECTED AND CONDEMNED

	<i>Cattle.</i>	<i>Calves.</i>	<i>Sheep and Lambs.</i>	<i>Pigs.</i>
Number killed	7403	2638	52361	273606
Number inspected	Approx. 10%	Approx. 10%	Approx. 10%	Approx. 20%
<i>All Diseases except Tuberculosis :</i>				
Whole carcasses condemned	3	3	15	90
Carcases of which some part or organ was condemned.....	40	1	14	437
Percentage of the number killed affected with disease other than tuberculosis	0.6	0.1	0.1	0.2
<i>Tuberculosis only :</i>				
Whole carcasses condemned	5	3	—	152
Carcases of which some part or organ was condemned.....	104	—	—	17184
Percentage of the number killed affected with tuberculosis	1.5	0.1	—	6.3
TOTAL DISEASED	2.1%	0.2%	0.1%	6.5%

City Meat Market

CARCASES INSPECTED AND CONDEMNED

	<i>Cattle.</i>	<i>Calves.</i>	<i>Sheep and Lambs.</i>	<i>Pigs.</i>
Number killed	47,200	80,151	228,866	68,114
Number inspected	47,200	80,151	Approx. 10%	68,114
<i>All Diseases except Tuberculosis :</i>				
Whole carcasses condemned	299	572	1,671	296
Carcases of which some part or organ was condemned.....	6,042	348	2,402	1,195
Percentage of the number killed affected with disease other than tuberculosis	13.4	1.1	1.8	2.2
<i>Tuberculosis only :</i>				
Whole carcasses condemned	382	49	—	132
Carcases of which some part or organ was condemned.....	11,700	14	—	6,185
Percentage of the number killed affected with tuberculosis	25.6	0.1	—	9.3
TOTAL DISEASED	39%	1.2%	1.8%	11.5%

Meat and Other Foods certified as unfit for Human Consumption

<i>No. of Surrenders.</i>	<i>Class of Foodstuffs.</i>	<i>Tons.</i>	<i>Cwts.</i>	<i>Qrs.</i>	<i>Lbs.</i>
14653	Meat	632	8	3	23
524	Fish	65	13	3	15
1185	Poultry, Game, etc....	37	18	1	26
897	Fruit and Vegetables ..	507	5	—	6
143	Miscellaneous	3	15	2	13
17402	..... TOTALS	1247	1	3	27

All the unfit meat, fish, poultry and other foodstuffs are sent to the Salvage Department, Montague Street Depot.

Residual Value

Compensation at the rate of 3/- per cwt. is paid to the owners of carcasses and parts of carcasses surrendered as unfit for human food, and also in respect of the carcasses of pigs which died during transit.

During the year £1,346 16s. 3d. was paid in respect of the following carcasses, etc. :

	<i>Tons.</i>	<i>Cwts.</i>	<i>Qrs.</i>
Beef	205	1	2
Veal	11	7	3
Mutton	27	15	1
Pork	204	14	1
TOTALS	448	18	3

Diseases of Animals Acts

Anthrax

In the City of Birmingham there were seventeen cases of cattle and one pig which had died suddenly and which were suspected of being affected with anthrax. In each case a microscopic examination was made of the blood, but no case of anthrax was discovered.

Foot and Mouth Disease

In October outbreaks of foot and mouth disease occurred in the Eastern Counties, and to prevent the spread of the disease, which was of a virulent type, to the whole of the country, the Ministry of Agriculture made a standstill area of all the Eastern Counties. During the year there were 187 outbreaks and 30,811 animals were slaughtered. Fortunately the disease

did not spread to Birmingham, but the restrictions greatly interfered with the supply of pigs from the Eastern Counties for local bacon factories. In several cases in-contact animals had been brought to Birmingham, but we were able to trace them and found that they had been slaughtered on arrival.

Swine Fever

During the year fifty-seven cases of suspected swine fever were investigated and post-mortem examinations made. In seven of these cases symptoms of swine fever were detected, and specially reported to the Ministry of Agriculture and Fisheries; five of the cases were confirmed.

Under the Regulation of Movement of Swine Order of 1922 we examined during the year 5,568 store pigs which were brought into the city under licence.

Bovine Tuberculosis

Thirty-three cases of tuberculosis coming within the conditions of the Tuberculosis Orders of 1925 were dealt with during the year. All the affected animals were slaughtered and compensation amounting to £149 0s. 0d. was paid to the owners.

SECTION F

**Prevalence of, and Control
over, Infectious and other
Diseases**

SECTION F

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES

GENERAL

The mortality figures for 1937 are compared with the decennial averages in the statement below :

<i>Disease.</i>	<i>Deaths in 1937.</i>	<i>Average 1927-1936.</i>	<i>Above or below the average.</i>
Enteric Fever	1	3	- 2
Small-pox	0	0	—
Measles	73	84	- 11
Scarlet Fever.....	9	12	- 3
Whooping Cough	28	101	- 73
Diphtheria	80	67	+ 13
Pulmonary Tuberculosis	756	835	- 79
Other Forms of Tuberculosis	80	115	- 35
Influenza	421	329	+ 92

The prevalence of the notifiable diseases is shown in the next table :

<i>Disease.</i>	<i>Cases in 1937.</i>	<i>Average 1927-1936.</i>	<i>Above or below the average.</i>
Enteric Fever	17	39	- 22
Small-pox	0	6	- 6
Scarlet Fever.....	2,644	2,665	- 21
Diphtheria	1,359	1,190	+ 169
Erysipelas	574	543	+ 31
Puerperal Fever	83	94	- 11
Puerperal Pyrexia	232	154	+ 78
Ophthalmia Neonatorum	962	520	+ 442
Pulmonary Tuberculosis	965	1,230	- 265
Other Forms of Tuberculosis	154	236	- 82
Acute Primary or Influenzal Pneumonia..	2,532	2,568	- 36
Cerebro-spinal Fever	27	21	+ 6
Acute Poliomyelitis	1	9	- 8
Polioencephalitis	—	1	- 1
Encephalitis Lethargica	19	26	- 7
Malaria	3	5	- 2
Dysentery	61	19	+ 42
Continued Fever	—	0	—

The diphtheria cases exceeded the average by 169, those of scarlet fever were below the average by 21. As indicated by the number of deaths in relation to this incidence scarlet fever was mild and diphtheria relatively severe in type.

The action taken with regard to puerperal fever, puerperal pyrexia and ophthalmia neonatorum is recorded in the Maternity and Child Welfare

Section of this report. The continued increase in notifications of ophthalmia neonatorum is significant only of greater freedom in notifying many cases which are not severe and are not gonococcal in origin.

The following cases were reported through the head teachers of elementary schools and the attendance officers :

	1937.	1936.	1935.
Measles	7,321	6,079	8,765
German Measles	127	332	5,192
Whooping Cough	1,816	6,120	3,375
Chicken Pox	5,217	6,230	5,584
Mumps	1,131	11,186	1,945

The cases were visited by health visitors and steps taken to exclude contacts from school where necessary.

Enteric Fever

During the year 28 cases were notified, but further investigation revealed the fact that 11 of these were not suffering from the disease. Of the remaining 17 cases 4 were contracted outside the city. The remaining 13 Birmingham cases are tabulated as follows :

Typhoid Fever	7 (all sporadic)
Paratyphoid A.....	0
Paratyphoid B.....	6
Paratyphoid C	0

One death occurred from typhoid fever. Of the six cases of Paratyphoid B, four were sporadic and two secondary.

	No. of Cases.	Case rate per 1,000.	No. of deaths registered.	Death-rate per 1,000.
1901- 5 (average)	544	·70	91	·12
1906-10 "	242	·30	51	·06
1911-15 "	90	·11	22	·03
1916-20 "	22	·02	5	·01
1921-25 "	30	·03	4	·00
1926-30 "	41	·04	5	·00
1931-35 "	42	·04	2	·00
1928	20	·02	3	·00
1929	31	·03	4	·00
1930	62	·06	9	·01
1931	54	·05	1	·00
1932	58	·06	2	·00
1933	30	·03	1	·00
1934	40	·04	6	·01
1935	28	·03	2	·00
1936	28	·03	2	·00
1937	17	·02	1	·00

Undulant Fever

One case of undulant fever came to the notice of the Department during the year, but upon investigation it was found that the patient, a boy aged 14, had contracted this outside the city.

Glandular Fever

No cases of this disease came to the notice of the Department during the year 1937.

Small-pox

No cases of small-pox occurred in the city during the year.

Vaccination

Since April 1st, 1930, when the Local Government Act, 1929, came into force, the administration of the Vaccination Acts has been carried out by the Public Health Committee.

Below are tabulated statistics relating to this work for the current year, together with similar figures relating to each year since 1929. It will be seen that the percentage of successful vaccinations has risen slightly above the figures for 1936 and 1935, though lower than that for previous years, while the slight increase of conscientious objectors experienced during recent years continued in 1937. Coupled with this latter fact, however, it has to be remembered that only four cases of small-pox have occurred in the city since 1928; so that there has been no strong incentive to have vaccination performed where parents are otherwise hesitant.

VACCINATION.

	1937.	1936.	1935.	1934.	1933.	1932.	1931.	1930.	1929.
Births Returned.....	17040	16501	16340	15703	17063	17832	17866	17590	17786
Conscientious Objectors per cent	31.2	31.0	30.6	29.5	28.0	28.0	26.8	25.2	20.4
Died unvaccinated	865	920	856	823	830	958	841	900	939
Successful Vaccinations (per cent of survivors)	51.9	51.7	50.8	53.1	55.4	54.8	54.3	53.7	62.0
Insusceptible (per cent of survivors)	0.3	0.5	0.4	0.5	0.9	1.0	1.1	1.2	0.5
Postponed by Medical Certificate (per cent. of survivors)	0.3	0.5	0.3	0.5	0.4	0.4	0.5	0.6	0.7
Removed (per cent of survivors).....	3.8	3.4	4.9	4.1	3.8	3.5	4.5	5.1	4.1
Lost sight of (per cent of survivors)	3.5	3.0	2.6	2.6	2.6	2.7	2.3	2.4	2.5
Still under notice (per cent of survivors) ..	7.3	8.1	8.7	8.0	7.6	7.9	9.2	10.5	9.1

Measles

All cases notified to the Department through the schools have been systematically visited by health visitors, and advice as to nursing and general hygiene given where required.

During the year 564 cases were admitted to Little Bromwich Hospital for treatment.

Since the third quarter of 1930 immunisation methods have been applied to the attenuation of infection or the prevention of the disease. The blood serum of a person who has previously suffered from measles, when given intramuscularly to contacts in suitable amount, and at a suitable stage in the incubation period, will either prevent the disease occurring or so modify it as to make the attack a mild one.

Supplies of such serum are being obtained by the generous co-operation of the Birmingham Blood Transfusion Service, whose members have kindly come forward to act as donors.

This serum is given to selected children under five years of age who have been in contact with measles and who are either also acutely ill with some other disease or in a state of chronic ill-health. In most of the cases the aim is not to prevent infection, but to *attenuate* it, thus obtaining life-long immunity without grave disturbance of health. Apart from cases referred by health visitors and general practitioners for such immunisation, some of the voluntary hospitals requested help with a view of preventing further cases occurring in their wards where there were children suffering from acute illnesses. Immunisation has been carried out on 361 children during the year with satisfactory results. The inoculations were for prevention in 92 cases and for attenuation in 269.

There were 73 deaths registered from the disease during the year.

The number of cases in past years, together with the mortality rate, are set out in the following table :

	No. of Cases.*	No. of Deaths.	Death rate per 1,000 of population
1901- 5 (average) ..	?	279	·36
1906-10 " ..	?	294	·36
1911-15 " ..	6,027	419	·48
	(1912-1915)		
1916-20 " ..	10,773	168	·18
1921-25 " ..	6,831	121	·13
1926-30 " ..	7,464	100	·10
1931-35 " ..	7,504	76	·08
1928	5,030	41	·04
1929	9,764	196	·20
1930	6,512	58	·06
1931	9,745	177	·18
1932	5,033	52	·05
1933	9,011	77	·08
1934	4,967	23	·02
1935	8,765	52	·05
1936	6,079	39	·04
1937	7,321	73	·07

*Partial notification only through schools, except for the years 1916-19.

From the following table it is evident that the death-rate from measles in the Central Wards is far in excess of that for the Middle or the Outer Ring of Wards, owing to the course of the disease and the liability to contract complications being directly influenced by overcrowding and insanitary conditions.

MEASLES DEATH-RATE PER 1000

	1935.	1936.	1937.
Central Wards	·11	·06	·19
Middle Ring	·03	·02	·04
Outer Ring	·04	·03	·04

The age-distribution of the fatal cases of measles was as follows :

	1935.	1936.	1937.
Under 1 year	11	8	17
1 and under 2 years ..	22	14	31
2 and under 5 years ..	13	12	18
5 years and over	6	5	7
TOTALS.....	52	39	73

Scarlet Fever

The total number of notifications received during the year for this disease was 2,650. Of these, 1,212 were treated in hospital and the remainder, 1,438, were treated at home.

After revision of diagnosis the total number of true cases of scarlet fever treated in hospital was 1,211, and those at home 1,433. Several cases admitted as diphtheria proved to be suffering from scarlet fever.

In addition, there were 11 cases treated in the City Hospital on behalf of other authorities.

The death-rate of ·01 per 1,000 for 1937 is about the same as the average death-rate for this disease for the past ten years.

SCARLET FEVER CASES AND DEATHS

	<i>No. of Cases.</i>	<i>Case-rate per 1,000 population.</i>	<i>No. of Deaths.</i>	<i>Death-rate per 1,000 population.</i>	<i>Case Mortality per cent.</i>
1901-05 (average)	4,038	5.21	172	.22	4.26
1906-10 ,,	3,956	4.83	116	.14	2.93
1911-15 ,,	5,456	6.29	125	.14	2.29
1916-20 ,,	2,472	2.73	41	.04	1.66
1921-25 ,,	2,652	2.84	32	.03	1.21
1926-30 ,,	1,910	1.96	9	.01	0.47
1931-35 ,,	2,966	2.90	14	.01	0.47
1928.....	1,521	1.56	5	.01	0.33
1929.....	2,413	2.46	9	.01	0.37
1930.....	2,397	2.44	15	.02	0.63
1931.....	2,761	2.73	10	.01	0.36
1932.....	2,544	2.50	12	.01	0.47
1933.....	2,639	2.58	20	.02	0.76
1934.....	3,297	3.21	15	.01	0.45
1935.....	3,591	3.48	12	.01	0.33
1936.....	3,981	3.84	10	.01	0.25
1937.....	2,644	2.53	9	.01	0.34

The report on cases treated at the Infectious Diseases Hospital will be found on page 165.

Whooping Cough

Whooping cough caused 28 deaths during 1937. The following table gives the number of cases and deaths in previous years, and it will be seen that both the number of known cases and the death-rate was at a much lower level than in 1936.

	<i>No. of Cases.*</i>	<i>No. of Deaths.</i>	<i>Death-rate per 1,000 population.</i>
1901- 5 (average)	?	316	.41
1906-10 ,,	?	294	.36
1911-15 ,,	3,264	213	.25
	(1912-1915)		
1916-20 ,,	3,592	206	.23
1921-25 ,,	4,463	180	.19
1926-30 ,,	4,443	119	.12
1931-35 ,,	4,130	87	.08
1928	6,463	163	.17
1929	3,347	123	.13
1930	5,012	110	.11
1931	3,990	89	.09
1932	5,248	131	.13
1933	2,143	35	.03
1934	5,896	115	.11
1935	3,375	66	.06
1936	6,120	107	.10
1937	1,816	28	.03

*Partial notification through schools.

The ages at death were as follows :

	1933.	1934.	1935.	1936.	1937.
Under 1 year	14	52	26	66	15
1 and under 2 years	13	37	14	20	6
2 and under 5 years	6	24	24	19	4
Over 5 years	2	2	2	2	3
TOTALS	35	115	66	107	28

Thus 21 out of the 28 deaths occurred among children under two years of age.

Every case of whooping cough reported to the Department is visited, and advice given on hygienic measures. Where appropriate the services of a district nurse are supplied under an arrangement made with the District Nursing Association.

Diphtheria

The total number of cases notified was 2,088. Of these 2,014 were removed to the City Fever Hospital, the remainder (74) being nursed at home.

Revision of diagnosis took place in 732 of the hospital cases and three home cases, while six cases sent in as scarlet fever proved to be suffering from diphtheria.

After correction, the net number of cases of definite diphtheria belonging to the city was 1,359, of whom 1,288 were treated in hospital and 71 at home.

In addition, there were 35 cases treated in the City Hospital on behalf of other authorities.

DIPHTHERIA CASES AND DEATHS

	<i>Cases of Clinical Diphtheria.</i>	<i>Case-rate per 1000 of Population.</i>	<i>Deaths.</i>	<i>Death-rate per 1000 of Population.</i>	<i>Case Mortality per cent.</i>
1901-05 (average)	991	1.28	159	.20	16.0
1906-10 ,,	1,210	1.48	149	.18	12.3
1911-15 ,,	1,125	1.30	155	.18	13.8
1916-20 ,,	1,065	1.19	143	.16	13.4
1921-25 ,,	1,651	1.76	109	.12	6.6
1926-30 ,,	1,642	1.69	84	.09	5.1
1931-35 ,,	871	0.85	60	.06	6.9
1928.....	1,552	1.59	70	.07	4.5
1929.....	1,611	1.64	86	.09	5.3
1930.....	1,701	1.73	88	.09	5.2
1931.....	1,171	1.16	62	.06	5.3
1932.....	620	0.61	35	.03	5.6
1933.....	417	0.41	33	.03	7.9
1934.....	1,019	0.99	84	.08	8.2
1935.....	1,129	1.09	84	.08	7.4
1936.....	1,142	1.10	63	.06	5.5
1937.....	1,359	1.30	80	.08	5.9

The distribution over the City is indicated in the table below, which shows that the cases were more prevalent in the Central Wards than in the Middle and Outer Ring.

<i>Central Wards.</i>	<i>Middle Ring.</i>	<i>Outer Ring.</i>
St. Paul's..... 3·81	Lozells 1·91	Soho..... 0·67
St. Mary's 3·16	Aston 1·77	Sandwell 0·29
Duddeston and	Washwood Heath 0·62	Handsworth 0·71
Nechells 1·48	Saltley 0·95	Perry Barr 1·91
St. Bartholomew's 1·09	Small Heath 0·92	Erdington 1·21
St. Martin's and	Sparkbrook 1·10	Gravelly Hill 1·13
Deritend 1·66	Balsall Heath .. 0·95	Bromford 1·12
Market Hall 1·87	Edgbaston 0·86	Stechford..... 1·01
Ladywood 3·33	Rotton Park 1·32	Yardley 1·83
	All Saints' 1·05	Acocks Green 0·57
		Hall Green 0·47
		Sparkhill 0·28
		Moseley and King's
		Heath 0·69
		Selly Oak..... 0·50
		King's Norton .. 0·49
		Northfield 1·81
		Harborne..... 0·59
Average 2·34	Average 1·14	Average 0·90
		Whole City..... 1·30

A report on the cases treated at the Infectious Diseases Hospital will be found on page 165.

DIPHThERIA ANTI-TOXIN

Diphtheria anti-toxin is distributed free of charge to medical practitioners for the treatment of their patients, and can be obtained from the Public Health Department, the Bacteriological Laboratory, and eighteen police stations.

IMMUNISATION AGAINST DIPHTHERIA

The work of immunisation continues to make good progress and 17,510 children were immunised through this Department during 1937, together with 1,102 immunised by general practitioners. There are now approximately 104,000 immunised children and adolescents in the city. The table below shows the various directions in which immunisation has been effected :

	<i>Number of Immunisation. Centres.</i>	<i>Children Immunised.</i>	
		<i>Received full immunising dosage.</i>	<i>Incomplete immunising dosage.</i>
Council House	1	999	20
Infant Welfare Centres	59	8,311	977
Day Schools and Special Schools	192	7,876	429
Residential Institutions and Residential Schools.....	18	324	—
TOTALS	270	17,510	1,426

It was estimated that by the end of 1937 26·7 per cent of the children between eight months and five years of age had been immunised against diphtheria through the Public Health Department.

Renewed proof of the value of immunisation has been afforded during the year, and the following table shows, amongst other things, that no death has occurred in an immunised person since the work was started in 1925.

DIPHTHERIA INCIDENCE AND MORTALITY IN INOCULATED AND NON-INOCULATED CHILDREN UNDER 15 YEARS OF AGE, BIRMINGHAM, 1925-1937.

<i>Inoculated Group. Children under 15 years of age.</i>				
<i>Year.</i>	<i>Actual Cases.</i>	<i>Actual Deaths.</i>	<i>Case-rate per 1000 inoculated population under 15.</i>	<i>Death-rate per 1000 inoculated population under 15.</i>
1925	—	—	—	—
1926	—	—	—	—
1927	1	—	0·2	—
1928	1	—	0·12	—
1929	1	—	0·09	—
1930	1	—	0·06	—
1931	4	—	0·17	—
1932	3	—	0·08	—
1933	3	—	0·06	—
1934	9	—	0·15	—
1935	16	—	0·22	—
1936	12	—	0·14	—
1937	30	—	0·27	—

<i>Non-inoculated Group. Children under 15 years of age.</i>				
<i>Year.</i>	<i>Actual Cases.</i>	<i>Actual Deaths.</i>	<i>Case-rate per 1000 non-inoculated population under 15.</i>	<i>Death-rate per 1000 non-inoculated population under 15.</i>
1925	1,531	93	6·12	0·37
1926	1,415	111	5·70	0·44
1927	1,173	57	4·79	0·23
1928	1,242	64	5·13	0·26
1929	1,330	77	5·56	0·32
1930	1,700	73	7·26	0·31
1931	938	58	4·08	0·25
1932	485	32	2·25	0·14
1933	339	29	1·64	0·14
1934	853	79	4·40	0·41
1935	964	80	5·30	0·44
1936	966	62	5·60	0·37
1937	1,120	76	7·60	0·52

Dysentery

Sixty-six cases were notified during the year, but on investigation five of these proved not to be dysentery cases. Of the 61 true cases, 32 were due to B. Sonne, 26 to B. Flexner, 2 to B. Shiga, and one due to Morgan's bacillus. One death occurred from Flexner dysentery. The incidence is substantially higher than in recent years—as has been the corresponding incidence in many other areas—but the cases have been distributed over the whole city and were not traceable to any specific single source.

Food Poisoning

Cases of food poisoning became compulsorily notifiable in January, 1936, and during the year under review 512 such cases were notified to the Department. The vast majority were of a trivial nature not calling for any specific action by the Public Health Department. In regard to the few remaining cases the necessary action of tracing the infected food stuff, etc., was carried out.

Four deaths occurred :

Two cases due to *Bacillus Gaertner*, presumably contracted from eating infected bacon.

One case due to *Bacillus Newport*, presumably contracted from eating infected jellied veal.

One case notified only after autopsy.

Acute Anterior Poliomyelitis

Two cases of this disease were notified, but one of these proved not to be anterior poliomyelitis.

POLIOMYELITIS.

<i>Year.</i>	<i>Cases Notified.</i>	<i>Died.</i>	<i>Complete Recovery.</i>	<i>Some Paralysis.</i>
1917 ..	11	2	6	3
1918 ..	4	—	2	2
1919 ..	14	1	6	7
1920 ..	1	—	—	—
1921 ..	11	4	1	6
1922 ..	6	—	1	5
1923 ..	33	3	1	29
1924 ..	39	5	5	29
1925 ..	11	3	5	3
1926 ..	38	3	3	32
1927 ..	15	1	6	8*
1928 ..	6	1	1	4
1929 ..	6	—	1	5
1930 ..	9	1	3	5
1931 ..	3	—	1	2
1932 ..	17	6	2	9
1933 ..	10	3	1	6
1934 ..	5	—	3	2
1935 ..	9†	—	2	5
1936 ..	11	2	1	8
1937 ..	1	—	—	1

*One died later of intercurrent disease. †Two left district.

Polioencephalitis

No case of this disease was notified during the year.

Encephalitis Lethargica

During the year 19 true cases of this disease came to light in the city, 18 proving fatal. The years of onset were as follows :

1920	1	1933.....	1
1924	1	1935.....	5
1929	1	1936.....	4
1930	3	1937.....	2
1931	1		

The cases notified and deaths recorded in previous years have been as follows :

<i>Year.</i>	<i>Cases.</i>	<i>Deaths.</i>	<i>Year.</i>	<i>Cases.</i>	<i>Deaths.</i>
1919....	11	5	1929....	27	20
1920....	18	7	1930....	10	7
1921....	25	8	1931....	18	12
1922....	12	4	1932....	23	19
1923....	29	12	1933....	25	21
1924....	282	44	1934....	12	9
1925....	92	32	1935....	28	26
1926....	89	36	1936....	23	21
1927....	53	32	1937....	19	21
1928....	41	22			

Cerebro-spinal Fever

Twenty-eight cases were notified as cerebro-spinal meningitis during the year. Of these, 27 were confirmed bacteriologically. In one case the diagnosis was afterwards revised. Of the 27 actual cases 16 succumbed to the attack, giving a case mortality rate of 59 per cent.

<i>Age Distribution.</i>	<i>Cases.</i>
Under 1 year	6
1 and under 3 years	4
3 " 5 "	1
5 to 10 "	6
10 " 15 "	2
15 " 20 "	1
20 " 25 "	3
25 " 30 "	3
30 " 35 "	—
35 years upwards	1

The cases and deaths in previous years have been as follows :

<i>Year.</i>	<i>Cases Notified.</i>	<i>Deaths.</i>	<i>Year.</i>	<i>Cases Notified.</i>	<i>Deaths.</i>
1920....	25	18	1929....	15	15
1921....	9	7	1930....	14	14
1922....	18	16	1931....	25	21
1923....	4	2	1932....	31	22
1924....	11	8	1933....	26	20
1925....	7	6	1934....	24	20
1926....	10	9	1935....	17	15
1927....	12	10	1936....	38	23
1928....	12	9	1937....	27	16

REPORT ON THE CITY INFECTIOUS DISEASES HOSPITALS FOR THE YEAR 1937

By DR. JOHN MCGARRITY, *Medical Superintendent*

PREFACE

Little Bromwich

The hospital contains at present 592 beds. It consists of twenty-four wards, built at different periods. Wards 3-7, with an isolation block—14, were built forty years ago. Wards 1-3, with another isolation block—15, were built thirty years ago. These are all single-storey wards—recently modernised. Three double-decker blocks, Wards 8-13, and two single-storey cubicle blocks—16 and 17—were erected about twelve years ago. The ground floor wards in the double-storey blocks are used as bed isolation wards: they have verandahs. Other three double-storey blocks, Wards 18-23, and an additional single-storey cubicle block—24, were opened about three years ago: the ground floor wards in these double-storey blocks also have verandahs.

The hospital has recently built nurses' and maids' homes and a fine new general kitchen.

At present 156 beds are being added, all in cubicles (three double-storey blocks and one single-storey ward), while the laundry, mortuary, etc., are being rebuilt.

The hospital is now modern in all respects.

Witton Hospital

This hospital for small-pox consists of three wards each containing twenty beds. One of the wards is a permanent building and the other two are semi-permanent. There is ample accommodation for medical and nursing staff.

During the year 4,366 patients were admitted to the wards, compared with 4,540 during 1936; 4,410 during 1935; 4,506 during 1934; 3,595 during 1933; and 3,996 during 1932. The figure 4,366 includes forty-eight from outside the city, viz., thirty-three cases of diphtheria, eight cases of scarlet fever, and seven miscellaneous cases.

The following tables give the number of cases of the most important infectious diseases and miscellaneous cases notified during the year and admitted to the hospital, and also the numbers who were discharged or died, as well as the numbers remaining in hospital at the end of the year. The figures in these tables have not been corrected as regards their true diagnosis. The revised diagnosis will be found under the report of the different diseases later in the report.

It will be noted that there is a slight falling off in the total admissions (4,366 as compared with 4,540). There was an increase in the admission of notified cases of diphtheria (2,049 compared with 1,620), and a corresponding decrease in the admission of the notified cases of scarlet fever—1,223, compared with 1,735. This decrease in the admissions of cases of scarlet fever was due to the fact that more mild cases of scarlet fever had to be refused in order to admit the cases of diphtheria. There was a slight decrease in the admissions of notified cases of the miscellaneous group (1,094 compared with 1,185). The miscellaneous cases included 128 cases of erysipelas ; 564 cases of measles ; and 204 cases of whooping cough. The cases of measles and whooping cough were mostly children from other institutions or from homes where it was impossible to give them adequate nursing.

The new cubicle blocks are going up slowly. We are eagerly looking forward to the day when the isolation accommodation will be increased by the extra 156 beds which will be provided in these cubicle blocks. This will give us altogether approximately 208 beds in cubicles or two-bedded wards out of a total accommodation of 748 beds. This represents that approximately 28 per cent of the total accommodation will be available for the special isolation of doubtful and very infectious cases or contacts of such cases. In addition, of course, there are the three-bed isolation wards for the isolation of many cases less infectious. In these wards there are approximately sixty beds for this purpose.

Small-pox cases, if they occur, will, no doubt, still be accommodated at Witton Hospital, where there are sixty beds reserved for such cases.

STATISTICS

Little Bromwich

(a) DIPHTHERIA.

(Uncorrected for Diagnosis)

In Hospital on December 31st, 1936.....	288
Admitted during 1937	2,049
Discharged during 1937	1,889
Died during 1937	78
Remaining on December 31st, 1937	370

(b) SCARLET FEVER

(Uncorrected for diagnosis)

In Hospital on December 31st, 1936.....	118
Admitted during 1937	1,223
Discharged during 1937	1,223
Died during 1937	9
Remaining on December 31st, 1937	109

(c) MISCELLANEOUS
(Uncorrected for diagnosis)

In Hospital on December 31st, 1936.....	83
Admitted during 1937	1094
Discharged during 1937	1044
Died during 1937	77
Remaining on December 31st, 1937	56

The miscellaneous admissions are set out below :

Chicken-pox	71
Diarrhoea	1
Dysentery.....	24
Enteric Fever	16
Erysipelas.....	128
Measles	564
Meningitis.....	7
Miscellaneous Observations	32
Mumps	22
Pemphigus	1
Pneumonia	9
Rubella	11
Vincent's Angina	4
Whooping Cough	204
TOTAL	1094

Scarlet Fever

1,223 patients were admitted during the year with a notified diagnosis of scarlet fever ; of these eighty cases were finally diagnosed as suffering from other complaints as follow :

No evidence of any disease.....	29
Erythema	15
Tonsillitis	14
Measles	9
Common Cold	3
Rubella	2
Urticaria	2
Diphtheria	2
Diphtheria Carrier	1
Lobar Pneumonia	1
Influenza	1
Rhinitis.....	1
TOTAL	80

Actually, 1,210 cases of true scarlet fever were treated in the wards during the year, of whom sixty were notified as diphtheria, four as measles, and three as rubella.

Fifteen patients had concurrent infections, as follow :

Scarlet fever and concurrent chicken-pox	5
Scarlet fever and concurrent nasal diphtheria	4
Scarlet fever and concurrent measles	3
Scarlet fever and concurrent rubella.....	1
Scarlet fever and concurrent erysipelas	1
Scarlet fever and concurrent nasal diphtheria and whooping cough	1
TOTAL	15

The type of scarlet fever continues to be mild, but there were :

Septic cases	7
Sub-septic cases	3
TOTAL	10

The number of deaths attributed to scarlet fever was seven, giving a hospital mortality of 0·58 per cent.

Details of fatal cases were as follow :

	<i>Age in years.</i>	<i>Cause of death.</i>
1	16	Septic scarlet fever.
2	1	Simple scarlet fever : broncho-pneumonia.
3	1	Simple scarlet fever : broncho-pneumonia : gastro-enteritis.
4	9	Simple scarlet fever : staphylococcal meningitis.
5	8	Toxic scarlet fever.
6	2 $\frac{3}{4}$	Septic scarlet fever.
7	20	Simple scarlet fever : empyema.

The principal complications are divided into groups according to treatment.

	<i>No Serum.</i>	<i>Serum.</i>	<i>Prontosil</i>	<i>Prontosil and Serum.</i>	<i>Total.</i>	<i>Per cent. of total cases.</i>
Cases treated	725	403	65	17	1,210	—
<i>Complications :</i>						
Arthritis	10	6	2	1	19	1·57
Nephritis	14	5	1	—	20	1·65
Otitis	34	23	1	2	60	4·96
Mastoid	2	7	—	1	10	0·83
Late Albuminuria	4	3	—	—	7	0·58
Late Adenitis	101	61	11	10	183	15·12
Tonsillitis	6	5	1	2	14	1·16
Relapse	7	1	—	—	8	0·66
Rhinitis	11	19	—	2	32	2·64
Endocarditis	2	1	1	—	4	0·33
Myocarditis	5	1	1	—	7	0·58
Abscesses	6	8	1	—	15	1·24
Bronchitis	2	—	—	—	2	0·17
Broncho-pneumonia	—	2	—	1	3	0·25
Jaundice	1	2	1	—	4	0·33
Osteomyelitis	—	—	—	1	1	0·08
Meningitis	—	1	—	—	1	0·08
Empyema	—	1	—	1	2	0·17
Erysipelas	—	1	—	—	1	0·08
TOTALS	205	147	20	21	393	32·48

The cases which received serum or prontosil were the more severe on admission.

<i>Reactions following serum.</i>	<i>Per cent of serum treated.</i>
Urticaria..... 84	20.84
Arthritis 3	0.74
Pyrexia 2	0.50

TABLE SHOWING AGE AND SEX OF SCARLET FEVER CASES

<i>Age Group.</i>	0-5	5-10	10-15	15-25	25-45	Over 45	<i>Totals.</i>
Recovered :							
Males	154	242	100	85	26	3	610
Females	139	233	109	67	43	2	593
Died :							
Males	2	1	—	—	—	—	3
Females	1	1	—	2	—	—	4
TOTALS	296	477	209	154	69	5	1,210

Hospital Mortality, 0.58 per cent.

Diphtheria

2,049 patients were admitted to the hospital with a notified diagnosis of diphtheria. Of these, 743 required revision of diagnosis and twenty-two were found to be suffering from diphtheria concurrently with another disease. Actually, 1,312 true cases of diphtheria were treated in the wards during the year, including two notified as scarlet fever, two as Vincent's angina, and two admitted for observation.

Concurrent infections occurred as follow :

Diphtheria concurrent scarlet fever	11
Diphtheria concurrent chicken-pox	7
Diphtheria concurrent measles	2
Diphtheria concurrent whooping cough	1
Diphtheria concurrent measles and chicken-pox.....	1
TOTAL	22

Revised diagnosis of 743 patients notified as diphtheria :

Tonsillitis	321
Carrier	120
Scarlet fever	60
No evidence of any disease.....	53
Laryngitis.....	43
Tonsillitis and carrier	43
Rhinitis.....	22
Quinsy	20
Measles	10
Common cold	6
Bronchitis.....	6
Otorrhœa	5
Chicken-pox	5
Stomatitis.....	5
Vincent's angina	4
Impetigo	3
Broncho-pneumonia	3
Pulmonary tuberculosis.....	3
Influenza	2
Gastro-enteritis	2
Adenitis	2
Erysipelas.....	1
Whooping cough.....	1
Asthma	1
Laryngismus stridulus	1
Carcinoma of œsophagus	1
TOTAL	743

Eight deaths occurred in the above revised cases, two from pulmonary tuberculosis, two from gastro-enteritis, one from broncho-pneumonia, one from chronic interstitial nephritis and uræmia, one from rheumatic carditis and one from laryngismus stridulus.

TABLE SHOWING TYPES OF DIPHTHERIA AND MORTALITY

<i>Type.</i>	<i>Total.</i>	<i>Died.</i>	<i>Mortality.</i>
Faucial	907	20	2·21%
Nasal	170	4	2·35%
Faucial and nasal	151	33	21·85%
Faucial and laryngeal.....	52	3	5·77%
Laryngeal	23	9	39·13%
Faucial, nasal and laryngeal.....	3	—	—
Nasal and laryngeal	4	—	—
Faucial and vulvar	1	1	100·00%
Wound	1	—	—
	1,312	70	5·34%

The four deaths classified as dying from nasal diphtheria were all suffering from another condition concurrently, viz., one hydrocephalus following meningitis, one broncho-pneumonia, one from pyæmia, and one from streptococcal angina and infective endocarditis.

Nineteen patients died within forty-eight hours of admission to hospital, and of these thirteen died within twenty-four hours of admission. Altogether seventy patients died from diphtheria during the year, representing a hospital mortality of 5·34 per cent, which compares favourably with 5·56 per cent in 1936 and 6·80 per cent in 1935.

TABLE SHOWING MORTALITY IN DIPHTHERIA ACCORDING TO DAY OF DISEASE ON WHICH SERUM WAS FIRST ADMINISTERED

<i>Day of disease on which serum was given.</i>	<i>Total.</i>	<i>Died.</i>	<i>Mortality.</i>
First	49	1	2·04%
Second	218	13	5·96%
Third	277	23	8·30%
Fourth	217	13	5·99%
Fifth	125	11	8·80%
Sixth day and later	273	8	2·93%
Prophylactic dose later than fifth day....	126	—	—
No serum	27	1*	3·70%
TOTALS	1,312	70	5·34%

*Died before serum could be administered.

The death classified as having serum on the first day of disease was suffering from broncho-pneumonia as well as diphtheria and died within twenty-four hours of admission.

Analysis of causes of death in seventy cases in which diphtheria was either the cause of death or a contributory cause.

Circulatory collapse	51
Laryngeal obstruction with cardiac failure.....	8
Diphtheria and broncho-pneumonia	2
Diphtheria, broncho-pneumonia and measles	1
Late respiratory paralysis	3
Late faucial diphtheria and coronary thrombosis.....	1
Faucial and laryngeal diphtheria, chicken-pox and measles....	1
Nasal diphtheria and pyæmia.....	1
Nasal diphtheria and hydrocephalus	1
Nasal diphtheria, streptococcal angina and infective endocarditis .	1
TOTAL	70

Post-diphtheritic paralyses occurred as follows :

	<i>Recovered.</i>	<i>Died.</i>
Palatal.....	148	4
Strabismus	17	—
Ciliary	17	—
Facial	10	—
Pharyngeal	14	2
Ptosis	3	1
Lower Limbs	35	—
Upper Limbs	3	—
Neck	31	2
Diaphragmatic	4	3
TOTALS	282	12

The 282 paralyses noted above occurred in 158 patients, all of whom recovered, giving a paralysis rate of 12·72 per cent, as compared with 10·55 per cent in 1936 and 20·15 per cent in 1935.

The twelve paralyses occurred in four fatal cases.

Laryngeal Diphtheria

Eighty-two cases of diphtheria had some laryngeal involvement, and of these twenty-five required operative interference for the relief of obstruction. In thirteen cases intubation alone was successful in relieving the obstruction, while two required a subsequent tracheotomy. One was relieved by a tracheotomy without previous intubation.

The remaining nine cases died, five obtained no relief from either intubation or tracheotomy and died within twelve hours of admission to hospital; two obtained relief by intubation but again obstructed and were not relieved by tracheotomy, one obtained relief from tracheotomy but owing to a retained tube was subsequently intubated, but died from cardiac failure. One was intubated with relief for ten days and then a tracheotomy was performed but the child died from diphtheria and concurrent measles and chicken-pox with the tube in situ.

REACTIONS FOLLOWING SERUM

<i>Amount of serum administered.</i>	0-8000	9000 or more I.M.	I.V. or I.M.+ I.V.	<i>Totals.</i>
Numbers	861	184	240	1,285
Urticaria	23	30	72	125
Morbilliform Rash	1	—	1	2
	24	30	73	127
	2·79%	16·30%	30·42%	9·88%

TABLE SHOWING AGE AND SEX OF DIPHTHERIA PATIENTS

<i>Age Group.</i>	0-5	5-10	10-15	15-25	25-45	Over 45	<i>Totals.</i>
Recovered :							
Males	162	263	79	28	11	—	543
Females	151	281	103	94	66	4	699
Died :							
Males	15	15	1	—	—	1	32
Females	11	16	9	1	1	—	38
TOTALS	339	575	192	123	78	5	1,312

Whooping Cough

In all 204 patients were admitted with a notified diagnosis of whooping cough and of these twenty-one required revision of diagnosis as follows :

No evidence of any disease.....	6
Bronchitis.....	6
Common Cold	4
Broncho-pneumonia	2
Measles	1
Empyema.....	1
Lobar pneumonia	1
TOTAL	21

Actually, 185 true cases of whooping cough were treated in the wards, including :

Notified as diphtheria	1
Notified as miscellaneous observation	1

Concurrent infections occurred as follow :

Whooping cough and concurrent chicken-pox..	5
Whooping cough and concurrent measles	4
Whooping cough and concurrent rubella	1
TOTAL	10

These ten are included in the whooping cough age-sex table.

The principal complications were as follows :

<i>Onset.</i>	<i>In patients who recovered.</i>	<i>In patients who died.</i>
Broncho-pneumonia present on admission	18	8
Broncho-pneumonia developed after admission....	2	1
Convulsions.....	1	1
Enteritis present on admission	7	1
Enteritis developed after admission	2	1
Otorrhœa present on admission	10	—
Otorrhœa developed after admission	5	1
Acute mastoiditis on admission.....	1	—
Bronchitis present on admission	28	1
Bronchitis developed after admission	16	—
Jaundice	1	—
Marasmus	1	2
TOTALS	92	16

Of the 185 patients found to be suffering from whooping cough twenty-nine were complicated by pneumonia and of these nine died. In twenty-six cases pneumonia was present on admission to hospital and in three cases pneumonia developed whilst the patients were under treatment.

Fifteen deaths occurred amongst the whooping cough patients, the cause of death being :

Whooping cough and broncho-pneumonia	9
Whooping cough and marasmus.....	2
Whooping cough and sarcoma of prostate	1
Whooping cough and bronchitis.....	1
Whooping cough and enteritis	1
Whooping cough and convulsions	1
TOTAL	15

TABLE SHOWING AGE AND SEX OF WHOOPING COUGH PATIENTS

<i>Age Group.</i>	0-1	1-2	2-3	3-4	4-5	5-10	10-20	<i>Over 20</i>	<i>Totals.</i>
Recovered :									
Males	17	25	11	14	2	9	—	—	78
Females .	28	16	14	9	9	15	1	—	92
Died :									
Males	4	3	—	—	1	—	—	—	8
Females .	4	1	1	1	—	—	—	—	7
TOTALS..	53	45	26	24	12	24	1	—	185

Hospital Mortality, 8·11 per cent.

Measles

In all, 564 patients were admitted with a notified diagnosis of measles, and of these forty-two required revision of diagnosis, as follows :

Erythema	3
No evidence of infectious disease	10
Miscellaneous	15
Scarlet fever.....	4
Rubella	5
Bronchitis.....	3
Serum rash	2
TOTAL	42

The miscellaneous group consists of one case of spasmodic cough, one meningococcal meningitis, one rhinitis, one broncho-pneumonia, three cases otorrhœa, one status lymphaticus, two dermatitis, one sweat rash, one chronic mastoid, one herpes ophthalmicus, one abscess of abdomen, one impetigo of face.

Actually 548 cases of measles were treated in the hospital, including :

Notified as scarlet fever	9
Notified as diphtheria.....	10
Notified as rubella	2
Notified as whooping cough	1
Notified as pneumonia	2
Admitted for observation	2
TOTAL	26

Concurrent infections occurred as follow :

Concurrent measles and whooping cough	4
Concurrent measles and diphtheria	7
Concurrent measles and scarlet fever	2
Concurrent measles and diphtheria carrier.....	1
Concurrent measles and chicken-pox	10
Concurrent measles and dysentery	1
TOTAL	25

The principal complications were as follow :

<i>Onset.</i>	<i>In patients who recovered.</i>	<i>In patients who died.</i>
Broncho-pneumonia on admission	71	35
Broncho-pneumonia after admission	9	4
Otitis media on admission	41	1
Otitis media after admission	56	7
Enteritis on admission	8	4
Enteritis after admission	8	—
Laryngitis	1	2 (intubated)
Convulsions	2	1
Encephalitis	—	1
Empyema	1	—
Mastoiditis	10	2
Cancrum oris	2	—
Marasmus	—	1
TOTALS	209	58

Forty-seven deaths occurred in the cases of measles, the causes of death being :

Broncho-pneumonia	36
Enteritis	4
Marasmus	1
Laryngeal obstruction	1
Broncho-pneumonia complicated by diphtheria..	3
Encephalitis	1
Convulsions	1
TOTAL	47

TABLE SHOWING AGE AND SEX OF MEASLES PATIENTS

<i>Age Group.</i>	0-1	1-2	2-3	3-4	4-5	5-10	10-20	<i>Over 20</i>	<i>Totals.</i>
Recovered :									
Males ..	25	69	49	36	25	51	1	8	264
Females .	22	52	48	28	22	42	9	14	237
Died :									
Males ..	6	9	2	2	1	3	—	—	23
Females .	3	8	5	2	3	3	—	—	24
TOTALS	56	138	104	68	51	99	10	22	548

Hospital Mortality, 8.56 per cent.

Erysipelas

In all 128 patients were admitted with a notified diagnosis of erysipelas, and of these eighteen required revision of diagnosis as follows :

Cellulitis	4
Erythema nodosum	3
Dermatitis	3
Impetigo	2
No evidence of disease	2
Otorrhœa	1
Empyema.....	1
Ringworm	1
Scabies	1
TOTAL	18

Actually 111 cases of erysipelas were treated in the wards, including one notified as diphtheria.

Two patients had concurrent scarlet fever.

The site of erysipelas was as follows :

Face	71
Face and scalp	8
Face, scalp, neck and shoulders	2
Face and neck	3
Limbs	21
Wounds (mastoid)	5
Generalised	1
TOTAL	111

The principal complications occurred as follow :

<i>Onset.</i>	<i>In patients who recovered.</i>	<i>In patients who died.</i>
Abscesses.....	8	2
Relapse	6	—
Lobar pneumonia	—	1
Broncho-pneumonia	—	1
Adenitis	2	—
Nephritis	1	—
TOTALS	17	4

Seventeen complications occurred in thirteen patients who recovered.

Five deaths occurred in erysipelas patients, the cause being as follows :

1	Male, æt 52	Facial erysipelas, cellulitis and furunculosis.
2	Male, æt 34	Facial erysipelas, broncho-pneumonia.
3	Male, æt 40	Facial erysipelas, lobar pneumonia.
4	Female, æt 10 weeks ..	Erysipelas of leg, septic bursitis, septicæmia.
5	Male, æt 73	Facial erysipelas, pulmonary œdema.

Forty-eight cases were treated with serum, forty-three with drugs of the prontosil group, and eleven with a combination of both. The temperature of those treated with prontosil dropped about twenty-four hours earlier than those with serum. Complications occurred equally in the two groups.

TABLE SHOWING AGE AND SEX OF ERYSIPELAS PATIENTS

<i>Age Group.</i>	0-5	5-10	10-15	15-25	25-45	Over 45	<i>Totals</i>
Recovered :							
Males	6	3	1	3	14	18	45
Females	10	—	2	9	14	26	61
Died :							
Males	—	—	—	—	2	2	4
Females	1	—	—	—	—	—	1
TOTALS	17	3	3	12	30	46	111

Hospital Mortality, 4.59 per cent.

Chicken-pox

Seventy-one cases were admitted with a notified diagnosis of chicken-pox and of these eight required revision of diagnosis as follows :

No evidence of any disease.....	3
Impetigo	2
Insect bites	2
Drug rash	1
TOTAL	8

Actually, sixty-eight cases of chicken-pox were treated in the wards, five being notified as diphtheria.

Two deaths occurred in the chicken-pox cases, the cause of death being as follows :

1	Æt 10 months ..	Chicken-pox, mastoiditis, mastoidectomy.
2	Æt 7 years	Chicken-pox, streptococcal meningitis following mastoidectomy.

Hospital Mortality, 2.94 per cent.

Concurrent infections occurred as follow :

Concurrent measles	1
Concurrent scarlet fever	1
Concurrent faucial diphtheria	1
TOTAL	3

Rubella

Eleven cases were admitted with a notified diagnosis of rubella and eight required revision of diagnosis as follow :

Scarlet fever	3
Measles	2
Erythema	1
Domestic rash	1
No evidence of any disease.....	1
TOTAL	8

Actually ten cases of rubella were treated in the wards, five being notified as measles and two as scarlet fever.

Enteric Fever

Sixteen cases were admitted with a notified diagnosis of enteric fever, and of these nine required revision of diagnosis as follow :

Food poisoning	3
Dysentery (Flexner)	1
Enteritis	1
Influenza	1
Streptococcal septicæmia	1
No evidence of any disease.....	2
TOTAL	9

In seven cases diagnosed as enteric fever the causative organism was B typhosus in two (one of which was complicated by a femoral thrombosis) and B paratyphosus in five. All the cases recovered.

Dysentery and Diarrhœa

Twenty-four cases were admitted with a diagnosis of dysentery, and of these nine required revision of diagnosis as follow :

Enteritis	5
No evidence of any disease	4
TOTAL	9

One case notified as enteric and one as pneumonia were found to be suffering from dysentery.

Of the seventeen cases finally diagnosed as dysentery, fourteen had *B. Sonne* as the causative organism, two *B. Flexner*, and one *B. Morgan* No. 1. All the cases recovered. One had concurrent chicken-pox.

One case was notified as diarrhœa and the diagnosis was confirmed. The child recovered.

Mumps

Twenty-two cases were notified as suffering from mumps and of these five required revision of diagnosis, as follow :

Adenitis	1
Otitis media	1
No evidence of any disease.....	3
TOTAL	5

The seventeen cases suffering from mumps all recovered.

Cerebro-spinal Meningitis

Seven cases were admitted with a notified diagnosis of cerebro-spinal meningitis. Four required revision of diagnosis as follow :

Pneumococcal meningitis	1 (died)
Subarachnoid hæmorrhage (spontaneous)	1
Septicæmia	1
No evidence of any disease.....	1
TOTAL	4

Five cases of cerebro-spinal meningitis were treated in the wards, one being admitted with a notified diagnosis of measles and one being admitted for observation. Of these, two recovered and three died. One of the deaths was a mixed meningococcal and staphylococcal infection.

Hospital Mortality, 60 per cent.

Pemphigus

One case was admitted with a notified diagnosis of pemphigus and the diagnosis was confirmed, and one case admitted for observation was found to be suffering from pemphigus. Both cases recovered.

Pneumonia

Nine cases were admitted with notified diagnosis of pneumonia, and of these six required revision of diagnosis as follow :

Measles	2
Bronchitis	2
Dysentery (Sonne)	1
Otitis media	1
TOTAL	6

Of the three cases confirmed, one lobar and one broncho-pneumonia recovered and one broncho-pneumonia died.

Vincent's Angina

Four cases were admitted with a notified diagnosis of Vincent's angina and all required revision of diagnosis as follow :

Diphtheria	2
Ulcerative stomatitis	2
TOTAL	4

Actually four cases of Vincent's angina were treated in the wards, all being notified as diphtheria. All recovered.

Miscellaneous Observations

Thirty-two cases were admitted for observation, seven were found to be suffering from infectious diseases and are included under these respective diseases, namely, two diphtheria, two measles, one pemphigus, one cerebro-spinal meningitis and one whooping cough.

The diagnoses in the remaining twenty-five cases were as follow :

No evidence of any disease	7
Tonsillitis	3
Acute mastoid (contact scarlet fever)	2 (1 died)
Otitis media	2
Miscellaneous	11
TOTAL	25

The miscellaneous group consists of one case each of erythema, influenza, neurosis, scabies, adenitis, enteritis, auricular fibrillation, bronchitis, dermatitis, catarrhal jaundice and suppurative adenitis (contact scarlet fever).

SUMMARY OF MISCELLANEOUS DISEASES

	<i>No. of cases notified</i>	<i>Diag- nosis revised.</i>	<i>Notified as another disease.</i>	<i>Actual No. of cases.</i>	<i>Died.</i>	<i>Case Mor- tality.</i>
Measles	564	41	26	548	47	8.57%
Whooping Cough	204	21	2	185	15	8.11%
Erysipelas	128	18	1	111	5	4.59%
Chicken-pox	71	8	5	68	2	2.94%
Enteric fever	16	9	—	9	—	—
Dysentery	24	9	2	17	—	—
Diarrhoea	1	—	—	1	—	—
Mumps	22	5	—	17	—	—
Meningitis	7	4	2	5	3	60.0%
Pneumonia	9	6	—	3	1	33.3%
Pemphigus	1	—	1	2	—	—
Rubella	11	8	7	10	—	—
Vincent's angina	4	4	4	4	—	—
Miscellaneous observation .	32	7	—	25	—	—
TOTALS	1,094	140	50	1,005	73	—

Operations

Mastoidectomy	27
Tonsillectomy and adenoidectomy	6
Incisions	13
Rib resections	2
Appendicectomy	1
Bilateral trephine	1
Reamputation of stump	1
Miscellaneous	4
TOTAL	55

The surgeons attended on thirty-nine occasions to perform the above operations and they also attended on several occasions when no operations were performed.

Laboratory

The following is a summary of the work conducted in the Hospital Laboratory during 1937 :

<i>Examinations.</i>	<i>Numbers.</i>
Specimens for B. diphtheriæ (positive)	2,014
Specimens for B. diphtheriæ (negative)	4,205
Specimens for Hæmolytic streptococci (positive)	41
Specimens for Hæmolytic streptococci (negative)	16
Specimens for Hæmolytic streptococci (not classified)	96
Specimens for streptococci (negative)	28
Typing of diphtheria organisms	154
Blood, Widal tests	15
Blood, bacteriological examinations	16
Blood, cell counts (red, white and differential)	20
Blood, Hæmoglobin estimations	20
Cerebro-spinal fluid, bacteriological examinations	58
Cerebro-spinal fluid, chemical examinations	62
Bacteriological examination of fæces	103
Agglutination tests	5
Examination of specimens for tubercle bacilli (positive)	1
Examination of specimens for tubercle bacilli (negative)	13
Swabs for Vincent's angina (positive)	7
Swabs for Vincent's angina (negative)	35
Miscellaneous bacteriological examinations	60
TOTAL	6,969

<i>Examinations.</i>	<i>Numbers.</i>
Urines for albumin (positive)	905
Urines for albumin (negative)	400
Urines for sugar (positive)	95
Urines for sugar (negative)	63
Urines for blood (positive)	57
Urines for blood (negative)	19
Urines for miscellaneous tests	62
Urines for deposits	540
TOTAL	2,141

TOTAL—all examinations : 9110.

Staff Prophylaxis

All members of the nursing and domestic staff were Schick and Dick tested soon after entering the hospital.

Dick and Schick tested	97
Dick -	} 54
Schick -	
Dick+	} 11
Schick+	
Dick+	} 9
Schick -	
Dick -	} 23
Schick+	
TOTAL	97

Schick+	34
Acquired immunity one month after treatment	20
Acquired immunity two months after treatment	4
Acquired immunity three months after treatment	2
Required extra treatment before acquiring immunity	3
Developed diphtheria before commencing treatment	1
Left hospital before completion of treatment	4
TOTAL	34

Dick+	20
Acquired immunity one month after treatment	11
Acquired immunity two months after treatment	2
Required extra treatment before acquiring immunity	3
Developed scarlet fever during treatment	1
Left hospital before acquiring immunity	2
Had extra treatment : still positive	1
TOTAL	20

In addition the existing members of the staff are tested at six-monthly intervals.

Sickness amongst the staff during 1937

Diphtheria	5
Scarlet fever	2
Measles	4
Chicken-pox	1
Tonsillitis	54
Adenitis	2
Quinsy	3
Sub-acute appendicitis	1
Influenzal cold	15
Erysipelas	1
Tonsillectomy	1
Neurosis	1
Enteritis	1
Neuralgia	1
Catarrhal jaundice	2
Pleurisy	2
Shingles	1
Pemphigus	1
Auricular fibrillation	1
Debility	1
Scabies	2
Dermatitis	1
Conjunctivitis	1
Erythema nodosum	1
TOTAL	105

The health of the staff was, on the whole, satisfactory, but the incidence of tonsillitis remains fairly high due probably to the fact that probationers are joining the staff at a younger age than formerly. Those nurses who contracted influenzal colds were not really seriously ill, and were off duty only for a day or so. There was only one case of serious illness, that of a nurse who contracted a severe attack of diphtheria before she had been immunized. She, however, made a good recovery.

PREVENTION OF BLINDNESS

General outline of facilities available in the city

These may be conveniently summarised into the following groups :

1	ANTE-NATAL	Examination, supervision and treatment of the expectant mother.
2	INFANCY	Measures taken to prevent blindness in children under one year of age.
3	PRE-SCHOOL	Preventive measures as applied to children between one and five years of age.
4	SCHOOL AGE	Ascertainment and treatment of eye diseases in children between five and fourteen years of age.
5	ADOLESCENT AND ADULT LIFE....	—

(1) *Ante-natal*

The condition of greatest importance as having an adverse influence in the ante-natal stage is venereal disease, and from the point of view of prevention of blindness in the child the presence of the disease in the mother should be detected as early as possible and appropriate treatment given.

The co-ordination of ante-natal work with that of venereal diseases is continually being emphasised both by the Prevention of Blindness Committee and also the Ministry of Health in their Circular 1476, 1935. Where it is possible to arrange for women and children to receive treatment for venereal diseases at a clinic in association with a maternity and child welfare clinic rather than at the recognised venereal diseases centre, such an arrangement is desirable. Such facilities are available at a combined maternity and child welfare centre and venereal disease treatment centre in two-storied premises at Lancaster Street, and good preventive work continues to be done there, with the co-operation of the ante-natal clinics, which refer all doubtful cases to the venereal diseases centre for diagnosis.

For England and Wales 43 per cent of expectant mothers attend ante-natal centres, the corresponding figure for Birmingham being 60 per cent. This obviously affords ground for excellent preventive work. In 1937 854 new cases attended the venereal diseases centre from the ante-natal clinics, sixty-three of these proving to be infected. The condition in the remaining 791 cases was non-venereal.

(2) *Infancy*

During the child's first year of life the principal source of blindness is that coming from infection with ophthalmia neonatorum.

The following measures are taken to combat this condition :

(a) Prophylactic measures are adopted as soon as the child is born, by the routine instillation into the eyes of proflavin, 1 in 500, in oily solution. This procedure effectively prevents infection occurring where effectively applied.

(b) Adequate provision of hospital accommodation for babies suffering from this condition and for their mothers ; and the routine reminder of the practitioner as to these facilities in connection with each ophthalmia notification.

(c) By arrangement between the Public Health Committee and the Eye Hospital two externe nurses are engaged to deal with cases of ophthalmia neonatorum and two for conditions other than ophthalmia neonatorum. They attend each morning at the hospital when they see the cases together with the surgeon and note the recommended treatment. Each case is then visited daily at home, treatment given and instructions passed on to parents in regard to future treatment and the necessity for re-attendance at hospital. Apart from any treatment given at the home by the nurses, each case attends three times weekly at the hospital. Necessitous cases have their fares paid.

The nurses are general trained with ophthalmic training, and have had eighteen months' experience as staff nurses at the Eye Hospital.

(3) *Pre-school*

Generally it may be said the supervision of this group is undertaken by the Maternity and Child Welfare Department and the medical officers dealing with nursery schools, etc., in the ordinary course of their work.

The ascertainment of eye conditions which might lead to loss of sight depends, therefore, on the observations of the maternity and child welfare staff (medical and nursing). Doubtful cases seen by this staff are referred either to the Eye Hospital or to the Children's Hospital, the latter institution having dealt with 248 cases of squint thus referred to them in 1937.

So far as concerns blindness liable to occur in the pre-school child after the infectious diseases, the services of an ophthalmologist are available at the Fever Hospital for the treatment of eye complications following such diseases.

(4) *School Age*

Measures to deal with this group include the following provision made by the School Medical Service :

- (a) Early detection of visual defects.
- (b) Services of ophthalmic surgeon available.
- (c) Close co-operation with the Eye Hospital.

(5) *Adolescence*

If one takes the partially-sighted children in this group, for instance, the myopics, it is the practice to keep these children under supervision until school leaving age, but thereafter for young workers in early adolescence neither examination nor treatment is statutorily provided. In order to deal with this gap between leaving school and coming within the scope of the National Health Insurance, the Public Health Committee made arrangements through the Education Committee for these special children to continue under the supervision of the school ophthalmic surgeon.

(6) *Adults : Occupational Blindness*

1·9 per cent of blind cases registered in the city are caused by industrial traumas, as compared with 1·39 per cent for the whole of the country. It is doubtful whether this figure will be reduced except in relation to the reduction of the general accident rate, as it must be remembered that many of the accidents involved the head and sometimes the whole body.

(7) *Infectious Disease*

The principal disease prone to cause blindness is measles, and to combat it a scheme is in effect whereby serum is available either to prevent the occurrence of measles in a contact or to cause a mild attack only. The services of an ophthalmic surgeon are also available on demand at the Fever Hospital.

(8) *General*

The Eye Hospital, assisted by a substantial grant from the Public Health Committee, established in country surroundings an annexe containing twenty beds for children and twelve for adult females. To this annexe are referred those types of eye conditions which under ordinary hospital conditions would take many months to clear up, but which under these healthy conditions rapidly return to normal. There is no doubt that this will play its important part in the prevention of blindness.

Admirable work is also being done at two hospitals in the city in the correction of squint, a condition which is prone to lead to blindness in the squinting eye.

The City Council are responsible for the administration of the Blind Persons Act, 1920, and have made arrangements with the Birmingham Royal Institution for the Blind for the following services to be provided on their behalf :

(a) *Workshop Employees*

At the end of the year under review there were 194 workshop employees registered. The trades practised are, for men : basket-making, brush-making, bedding, cane furniture, chair seating, etc. ; for women : hand

knitting, round and flat machine knitting, chair seating, etc. Although the weekly pay of these employees is at the trade union or other standard rate customary in the particular class of work on which the blind person is employed, the handicap of blindness prevents most blind persons from earning a livelihood if they are paid only what they can earn on a strictly commercial basis. It is necessary, therefore, to augment their earnings and during 1937-38 the City Council paid £10,880 for that purpose.

(b) *Home Workers*

There are twenty-four of these workers registered. Their ages vary from about twenty to seventy years, and the occupations carried out are similar to those of the workshop employees, plus such work as wood-chopping, piano tuning and repairing, music teaching, netting, boot repairing, etc.

Each home worker is provided with the requisite tools and equipment for his particular trade, and where necessary work-sheds are provided. Raw materials are supplied at cost price, and every assistance is given in helping him to dispose of his goods. Augmentation of earnings is provided for the home worker, and the amount paid by the City Council for this purpose was £1,191.

(c) *Unemployables*

These constitute the largest category of the blind, and 1,027 were on the register in 1937. The needs of these persons are two-fold: financial and social. Financial assistance is provided by the local authority making up their income to 25/- per week. The cost to the Corporation of this service was £19,546. As regards social assistance, the pivot of this service is the home teacher, whose duties include the teaching of Braille and Moon type, pastime occupation, home visiting and welfare work. The aim of the service is to secure that systematic home visiting should be provided for all blind persons needing it.

Cowley Home

During the year building extensions were carried out, and this Home now provides accommodation for some thirty otherwise homeless blind women. The contribution to the cost by the local authority for 1937-38 was £526.

Other responsibilities in relation to the welfare of the blind undertaken by the City Council include such matters as the maintenance of blind children at Sunshine Home. The contribution to the cost by the local authority for 1937-38 was £100.

The total contribution for all the blind services for 1937-38 was £35,824.

The following table gives particulars relating to *all* blind persons resident in Birmingham, including those mentioned above as coming within the scope of the Public Health Committee's responsibilities :

	<i>Males.</i>	<i>Females.</i>	<i>Total.</i>
Babies in Sunshine Home	2	1	3
Babies at Home	2	4	6
Babies in Public Assistance Institutions	3	1	4
Children at School : Resident	9	16	25
Day	4	5	9
Children of school age :			
At Home	5	2	7
In Public Assistance Institutions	6	2	8
In Public Health Department Hospitals	—	1	1
Adults in Training : Resident	8	3	11
Day	11	10	21
Adults awaiting training	5	1	6
Workshop workers recognised	135	59	194
Other blind employees	12	8	20
Trained home workers	17	8	25
Unemployables :			
At Home	407	541	948
In Public Assistance Institutions	40	52	92
In Public Health Department Hospitals	5	14	19
In Cowley Home	—	12	12
TOTALS	671	740	1,411

REPORT ON TUBERCULOSIS

By DR. G. B. DIXON, *Chief Clinical Tuberculosis Officer*

Institutions and Accommodation Provided

The Birmingham Public Health Committee maintains a single dispensary which serves the whole of the city. In addition, it provides 613 beds for the treatment of pulmonary and other forms of tuberculosis and for the observation and investigation of suspected cases of tuberculosis.

The Anti-Tuberculosis Centre, centrally situated in the city, is open for five days during the week, and on Saturdays for half the day. A small number of sessions is reserved for patients attending for treatment, supervision and observation, but most of the sessions are set apart for consultations and examinations. Many consultations and examinations are undertaken at the homes of patients by members of the medical staff. The medical staff of the dispensary, with one exception, is also responsible for the medical work of the various municipal sanatoria.

The beds for treatment, etc., are provided in four sanatoria and are allocated in the following way :

YARDLEY GREEN ROAD SANATORIUM

	<i>Beds.</i>	<i>Total.</i>
ADULTS :		
MALE : Observation	10	} 164
Treatment, intermediate and advanced cases of all forms of tuberculosis.....	154	
FEMALE : Observation	8	} 52
Treatment, early and intermediate cases of all forms of tuberculosis.....	44	
CHILDREN :		
Observation	19	} 121
Treatment, all stages and for all forms of tuberculosis	102	
TOTAL		337

WEST HEATH SANATORIUM

	<i>Beds.</i>
ADULTS :	
MALE : Advanced and intermediate cases of pulmonary tuberculosis	24
FEMALE : Advanced and intermediate cases of pulmonary tuberculosis	96
TOTAL	120

SALTERLEY GRANGE SANATORIUM

	<i>Beds.</i>
ADULTS :	
MALE: Early cases of pulmonary tuberculosis.....	38
FEMALE : Early cases of pulmonary tuberculosis.....	30
TOTAL	68

ROMSLEY HILL SANATORIUM

	<i>Beds.</i>
ADULTS :	
MALE : Early and intermediate cases of pulmonary tuberculosis	57
FEMALE : Early and intermediate cases of pulmonary tuberculosis	31
TOTAL	88

GRAND TOTAL : 613.

The treatment undertaken in the different sanatoria includes lung collapse by means of artificial pneumothorax, treatment by gold salts, vaccines, etc. In a limited number of cases different forms of surgical treatment for patients suffering from pulmonary tuberculosis have been undertaken, such as thoracoplasty, and severance of adhesions in cases of artificial pneumothorax ; the latter operation has given satisfactory results.

At the Yardley Green Road Sanatorium, which is situated $3\frac{1}{2}$ miles from the centre of the city, the patients are housed in eight detached pavilions. The kitchens, domestic stores, nurses' home, and medical officers' apartments are included in a large central building.

The cooking is undertaken in one kitchen, and food is conveyed to the four dining halls by means of electric trolleys.

The sanatorium buildings include an administrative office block, in which there is a laboratory. There are also occupational therapy shops, a schoolroom, and three recreation halls, a department for X-ray work, a section for artificial light treatment, which is used both for in-patients and out-patients, and a surgical block.

The clinical blocks at West Heath Sanatorium, which is situated eight miles from the centre of the city, consist of one pavilion for male cases and four pavilions for female cases, two of which have recently been reconstructed and fitted with large verandahs. There has recently been built a rest room for female patients with chronic disease who are infective and cannot be properly isolated at home. Many of them remain in the West Heath Sanatorium hospital for prolonged periods. In addition, there is a laboratory and an occupational therapy shop.

Romsley Hill Sanatorium, which is situated twelve miles from the centre of the city, is a two-storey building, which provides a number of cubicles for one, two, three, four and six beds. There are also several wards for ten and eleven beds. In addition, there are two recreation rooms, one for men and one for women, and the sanatorium has two occupational therapy shops and a laboratory.

Salterley Grange Sanatorium, situated in the Cotswolds, forty miles from the centre of the city, consists of a large administrative block containing residential quarters for the staff and, in addition, a kitchen, stores, and a dining hall for the patients. There are two recreation rooms for patients and a laboratory. The accommodation for patients includes forty single bed rooms, eleven rooms accommodating two beds, and two rooms which accommodate three patients.

In addition to the patients admitted to the City Sanatoria, during the year there were fourteen male adults, fifteen female adults, and ninety-seven children suffering from the non-pulmonary forms of tuberculosis, who were admitted to various hospitals, including the Royal Cripples' Hospitals, Moseley Hall, and the Children's Hospital, etc., for the treatment of non-pulmonary forms of tuberculosis. A grant towards the maintenance of these patients was made by the Public Health Committee.

During the year the home visits made by the medical staff numbered 1,136. The personal consultations between members of the medical staff and practitioners in the city during the year was 283 ; in addition, there were 7,712 other consultations with medical practitioners during the year.

Many persons attended at the City Sanatorium, Yardley Green Road, as out-patients, for artificial light treatment. During the year under review the number of attendances for this purpose was 11,314.

Admissions to the Sanatoria are decided upon only after examination at the Centre or at the patients' homes, and the sanatorium to which

patients are sent depends on the condition of the disease, etc. On returning from sanatoria patients are re-examined at the Centre and many old patients who discontinue treatment are re-examined from time to time.

The Anti-Tuberculosis Scheme includes thirty-seven beds at Yardley Green Road Sanatorium set apart for the purpose of observation and investigation : eleven are reserved for boys ; ten are reserved for adult males ; eight are reserved for adult females ; and eight are reserved for female children.

The provision of these beds facilitates a correct diagnosis which would in some cases be difficult to arrive at without them.

The scheme is also fortunate in having a large number of beds set apart for the care and treatment of the "hospital" type of case, the male patients being admitted to Yardley Green Road Sanatorium and the females to West Heath Sanatorium. These beds are essential on humanitarian grounds, and, in addition, are a prophylactic asset in connection with the public health of the city. For this reason it is desirable that as large a percentage as possible of the annual deaths occurring in the city from tuberculosis should take place in beds controlled by the Public Health Department.

During the period under review there were 836 deaths in the city from all forms of tuberculosis, and of this number no less than 425, or 51 per cent, occurred in beds in the municipal sanatoria and hospitals controlled by the Public Health Committee. A small number of beds is reserved in one of the municipal hospitals for tuberculous patients who require obstetric care.

The two subsequent tables show the reductions that have taken place in the death-rate from tuberculosis in all forms, and in the pulmonary and non-pulmonary varieties separately in this city. In the first table two hemi-decades with an interval of ten years have been chosen for comparison. In the second table two periods of three years, with an interval of ten years between them, have been compared, to show the decrease that has occurred in the incidence rate for tuberculosis, as revealed by notification. Amongst the deaths certified as having been caused by tuberculosis during the year were those of sixty-two persons who had been notified as suffering from this disease ten or more years ago, and 128 deaths from tuberculosis were certified during the year amongst persons who had been notified five or more years ago.

Quite a number of those suffering from tuberculosis who receive treatment recover from the disease. Last year 332 persons who had recovered were removed from the register, and in 953 instances the disease was in an arrested state, although the individuals were being kept under supervision as a precautionary measure. At present there are 5,414 known cases of tuberculosis in the city, being in the proportion of approximately five cases to one thousand of the population.

The mean mortality from tuberculosis for two comparable five-year periods has been as follows :

ALL FORMS OF TUBERCULOSIS AT ALL AGES

	<i>Death-rate per 1,000.</i>
Five years : 1923-1927	1.09
1933-1937	0.82

Reduction : 25 per cent.

PULMONARY TUBERCULOSIS AT ALL AGES

	<i>Death-rate per 1,000.</i>
Five years : 1923-1927	0.94
1933-1937	0.74

Reduction : 21 per cent.

NON-PULMONARY TUBERCULOSIS AT ALL AGES

	<i>Death-rate per 1,000.</i>
Five years : 1923-1927	0.15
1933-1937	0.08

Reduction : 47 per cent.

These figures show a very substantial decrease in the mortality during the past fourteen years.

The new cases of tuberculosis (all forms) show a considerable reduction. To illustrate this, two three-year periods are compared—i.e., 1925-1927 with 1935-1937.

NEW CASES OF TUBERCULOSIS

	<i>Incidence per 1,000.</i>
Three years : 1925-1927	1.91
1935-1937	1.11

Reduction : 42 per cent.

The notified cases of pulmonary tuberculosis for the year 1937 equal the lowest rate yet recorded, that for 1936, and the non-pulmonary tuberculosis rate is the lowest rate yet recorded.

The notified cases of tuberculosis showed a decrease during the year 1937, the number being 1,119, as compared with 1,136 in the year 1936.

The number of cases and deaths occurring in past years is shown in the following table :

TUBERCULOSIS (ALL FORMS)

	<i>New Cases.</i>	<i>Rate per 1,000.</i>	<i>Deaths.</i>	<i>Death-rate per 1,000.</i>
1901-1905 (average)	—	—	1,384	1.78
1906-1910 „	—	—	1,235	1.51
1911-1915 „	—	—	1,307	1.51
1916-1920 „	3,343	3.73	1,261	1.40
1921-1925 „	2,060	2.20	1,046	1.12
1926-1930 „	1,588	1.63	1,016	1.04
1931-1935 „	1,459	1.43	928	0.91
1922	1,961	2.12	1,049	1.13
1923	2,166	2.32	1,006	1.08
1924	2,129	2.22	1,055	1.10
1925	1,797	1.89	1,083	1.14
1926	1,704	1.78	1,024	1.06
1927	1,607	1.66	1,017	1.05
1928	1,606	1.64	965	0.99
1929	1,538	1.57	1,066	1.09
1930	1,483	1.51	1,008	1.03
1931	1,679	1.66	1,070	1.06
1932	1,517	1.49	954	0.93
1933	1,486	1.45	983	0.96
1934	1,398	1.36	814	0.79
1935	1,213	1.17	817	0.79
1936	1,136	1.10	805	0.78
1937	1,119	1.07	836	0.80

The relative prevalence and mortality from pulmonary and other forms of tuberculosis, shown separately, is indicated in the two subsequent tables :

PULMONARY TUBERCULOSIS

	<i>New Cases.</i>	<i>Rate per 1,000.</i>	<i>Deaths.</i>	<i>Death-rate per 1,000.</i>
1901-1905 (average).....	—	—	1,039	1·34
1906-1910 „	—	—	947	1·16
1911-1915 „	—	—	1,057	1·22
1916-1920 „	2,936	3·27	1,062	1·18
1921-1925 „	1,739	1·86	903	0·96
1926-1930 „	1,327	1·36	881	0·91
1931-1935 „	1,225	1·20	824	0·80
1919.....	2,704	2·92	1,019	1·10
1920.....	2,609	2·87	843	0·93
1921.....	1,969	2·15	890	0·97
1922.....	1,669	1·80	899	0·97
1923.....	1,785	1·91	860	0·92
1924.....	1,780	1·85	934	0·97
1925.....	1,491	1·57	930	0·98
1926.....	1,421	1·48	905	0·94
1927.....	1,343	1·39	857	0·89
1928.....	1,361	1·39	840	0·86
1929.....	1,270	1·30	918	0·94
1930.....	1,242	1·26	884	0·90
1931.....	1,397	1·38	932	0·92
1932.....	1,266	1·24	849	0·83
1933.....	1,250	1·22	874	0·85
1934.....	1,187	1·15	732	0·71
1935.....	1,023	0·99	732	0·71
1936.....	962	0·93	734	0·71
1937.....	965	0·93	756	0·72

NON-PULMONARY TUBERCULOSIS

	<i>New Cases.</i>	<i>Rate per 1,000.</i>	<i>Deaths.</i>	<i>Death-rate per 1,000.</i>
1901-1905 (average).....	—	—	345	0·45
1906-1910 „	—	—	289	0·35
1911-1915 „	—	—	249	0·29
1916-1920 „	407	0·45	199	0·22
1921-1925 „	321	0·34	143	0·15
1926-1930 „	260	0·27	135	0·13
1931-1935 „	234	0·23	104	0·10
1919.....	412	0·45	169	0·18
1920.....	365	0·40	158	0·17
1921.....	278	0·30	145	0·16
1922.....	292	0·32	150	0·16
1923.....	381	0·41	146	0·16
1924.....	349	0·36	121	0·13
1925.....	306	0·32	153	0·16
1926.....	283	0·30	119	0·12
1927.....	264	0·27	160	0·17
1928.....	245	0·25	125	0·13
1929.....	268	0·27	148	0·15
1930.....	241	0·25	124	0·13
1931.....	282	0·28	138	0·14
1932.....	251	0·25	105	0·10
1933.....	236	0·23	109	0·11
1934.....	211	0·21	82	0·08
1935.....	190	0·18	85	0·08
1936.....	174	0·17	71	0·07
1937.....	154	0·15	80	0·08

The cases notified in 1937 comprise the varieties shown in the next table, which also indicates the number of cases in which information was obtained from the death certificates alone, without previous notifications.

The total number of deaths is also shown.

	<i>New Cases notified in 1937.</i>	<i>Cases not notified before death.</i>	<i>Total deaths.</i>
Pulmonary tuberculosis	965	50	756
Tubercular meningitis.....	15	12	28
Tubercle of the abdomen	14	4	9
Tubercle of the spinal column	27	1	5
Tubercle of the joints	29	—	2
Disseminated tuberculosis	6	10	24
Tubercle of other organs	63	4	12

The number of instances in which tuberculosis was not notified prior to death was eighty-one for all forms of the disease, fifty were of the pulmonary type, and thirty-one were non-pulmonary.

Fifty were only diagnosed as the result of autopsies. Twenty-six died in their homes and fifty-five in hospitals; seven were the subjects of a coroner's enquiry.

In two instances cancer was also present, and in one case intestinal obstruction was associated; one death resulted from ante-partum hæmorrhage. In thirty-three of these individuals the age at death was fifty years or over.

Had so many of these persons not died in hospitals the number of autopsies would have been definitely fewer and the tuberculosis would probably have escaped detection in quite a large proportion.

After-death notifications cannot invariably be accepted as evidence of ineffective diagnosis, or of imperfect notifications, during the lifetime of the patient. They may bear some relationship to the hospitalisation of the area in which they occur, and to the activities of the local pathological departments.

In a number of cases tuberculosis was associated with other grave diseases and may not always have been the primary cause of death.

The home contacts of some of these persons were investigated, and some are being kept under supervision, which was an advantage to a number of children and adolescents who might not otherwise have been dealt with.

In the following table are shown the number of some forms of tuberculosis notified during the year, with the sex and age period at which they occurred.

CASES OF TUBERCULOSIS NOTIFIED DURING THE YEAR 1937, CLASSIFIED ACCORDING TO SEX AND AGE.

	0-	1-	2-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75 (up)	Totals.
Pulmonary Tuberculosis.... { M. F.	1 3	2 6	10 10	12 10	9 10	54 75	68 67	114 79	94 54	121 28	80 22	21 10	5 —	591 374
Tubercular Meningitis { M. F.	1 1	1 1	2 2	— 2	— 1	2 1	— 1	— —	— —	— —	— —	— —	— —	6 9
Tuberculosis of Peritoneum and Intestines { M. F.	— —	— —	2 —	1 —	1 —	3 2	1 1	— 2	— —	1 —	— —	— —	— —	9 5
Other Forms of Tuberculosis { M. F.	2 —	1 1	12 7	3 8	5 5	15 6	5 6	3 15	8 4	5 4	2 2	5 1	— —	66 59

In the subsequent table are shown the number of notifications and the number of deaths, arranged for males and females, according to the various age groups, relating to both pulmonary and non-pulmonary forms of tuberculosis :

TUBERCULOSIS, 1937

<i>Pulmonary.</i>	<i>Male.</i>		<i>Female.</i>	
	<i>Cases.</i>	<i>Deaths.</i>	<i>Cases.</i>	<i>Deaths.</i>
0-	1	2	3	3
1-	2	2	6	3
2- 4	10	4	10	4
5-14	21	3	20	8
15-24	122	52	142	80
25-44	208	160	133	119
45-64	201	216	50	54
65-74	21	31	10	7
75 (up)	5	8	—	—
	591	478	374	278
CASES TOTAL : 965. DEATHS TOTAL : 756.				
<i>Non-pulmonary.</i>	<i>Male.</i>		<i>Female.</i>	
	<i>Cases.</i>	<i>Deaths.</i>	<i>Cases.</i>	<i>Deaths.</i>
0-	3	4	1	3
1-	2	3	2	2
2- 4	16	6	9	6
5-14	9	9	17	5
15-24	26	8	17	8
25-44	11	7	21	2
45-64	8	8	6	5
65-74	5	1	1	1
75 (up)	—	1	—	1
	80	47	74	33
CASES TOTAL : 154. DEATHS TOTAL : 80.				
GRAND TOTALS : CASES, 1119. DEATHS, 836.				

The tuberculosis case-rates and death-rates in other towns for all forms of tuberculosis are given in the following tables :

TUBERCULOSIS (ALL FORMS). COMPARATIVE FIGURES IN ELEVEN
LARGEST TOWNS

	<i>Case-rate per 1000.</i>	<i>Death-rate per 1000.</i>
London	1·58	0·80
Glasgow	2·05	1·06
<i>Birmingham</i>	1·07	0·80
Liverpool.....	2·24	0·92
Manchester	1·90	1·03
Sheffield	2·14	0·80
Leeds	1·55	0·83
Edinburgh	1·50	0·80
Bristol	1·62	0·80
Hull	1·80	1·12
Bradford	1·22	0·77

It will be seen that Birmingham compares favourably with other great towns.

Tuberculosis in the City Wards

The distribution of cases of tuberculosis over the wards of the city is shown in the next tables :

CASE RATE PER 1000 IN 1937

	<i>Pulmonary.</i>	<i>Non-pulmonary.</i>	<i>Total.</i>	
CENTRAL WARDS.				
St. Paul's	1.39	0.31	1.70	Average..1.43.
St. Mary's	1.45	0.15	1.60	
Duddeston and Nechells	1.28	0.26	1.54	
St. Bartholomew's ..	1.06	0.13	1.19	
St. Martin's & Deritend	1.45	0.27	1.72	
Market Hall	1.34	0.21	1.55	
Ladywood	0.66	0.07	0.73	
MIDDLE WARDS.				
Lozells	1.26	0.18	1.44	Average..1.13.
Aston	1.43	0.12	1.55	
Washwood Heath	0.97	0.06	1.03	
Saltley	0.92	0.14	1.06	
Small Heath	0.81	0.14	0.95	
Sparkbrook	1.20	0.07	1.27	
Balsall Heath	0.73	0.09	0.82	
Edgbaston	0.63	—	0.63	
Rotton Park	1.02	0.20	1.22	
All Saints	1.22	0.14	1.36	
OUTER RING.				
Soho	1.05	0.17	1.22	Average..0.89.
Sandwell	0.77	0.05	0.82	
Handsworth	0.60	0.07	0.67	
Perry Barr	0.60	0.15	0.75	
Erdington	0.82	0.18	1.00	
Gravelly Hill	0.71	0.10	0.81	
Bromford	0.87	0.22	1.09	
Stechford	0.77	0.03	0.80	
Yardley	1.02	0.28	1.30	
Acocks Green	0.79	0.20	0.99	
Hall Green	0.89	0.12	1.01	
Sparkhill	0.81	0.19	1.00	
Moseley & King's Heath	0.61	0.08	0.69	
Selly Oak	0.74	0.17	0.91	
King's Norton	0.43	0.06	0.49	
Northfield	0.53	0.24	0.77	
Harborne	0.66	0.10	0.76	

There has been a decrease for the Central and Middle Wards and a very slight increase in the Outer Ring.

The figures for 1936, for these three divisions were 1.59, 1.14 and 0.87 respectively.

CASES OF TUBERCULOUS DISEASE NOTIFIED DURING THE YEAR 1937, CLASSIFIED ACCORDING TO WARDS

DISEASE.	CITY.																																			
	Acock's Green.	All Saints.	Aston.	Balsall Heath.	Bromford.	Duddeston and Nechells.	Edgbaston.	Erdington.	Gravelly Hill.	Hall Green.	Handsworth.	Harborne.	King's Norton.	Ladywood.	Lozells.	Market Hall.	Moseley and King's Heath.	Northfield.	Perry Barr.	Rotton Park.	St. Bartholomew's.	St. Martin's and Deritend.	St. Mary's.	St. Paul's.	Salley.	Sandwell.	Selly Oak.	Small Heath.	Soho.	Sparbrook.	Sparhill.	Stechford.	Washwood Heath.	Vardley.	Not Located.	
Pulmonary Tuberculosis.	28	36	46	23	24	44	17	23	22	36	16	19	14	18	35	25	24	22	32	31	32	48	39	41	26	16	22	23	25	36	26	22	30	29	15	965
Tubercular Meningitis . .	—	—	—	1	—	1	—	—	—	—	—	—	—	—	1	—	2	2	—	—	1	—	—	2	1	—	—	—	—	1	1	—	—	2	—	15
Tuberculosis of Peri- toneum and Intestines . .	—	1	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	2	—	1	—	1	—	—	2	1	1	1	1	—	—	1	—	14
Tuberculosis of Spinal Column	3	1	1	—	1	1	—	1	1	1	—	—	1	1	1	1	—	2	—	2	—	1	1	1	1	—	1	1	1	1	—	—	—	3	—	27
Tuberculosis of the Joints	2	1	2	—	2	3	—	1	—	1	—	1	1	—	1	1	1	3	1	—	1	—	1	1	1	—	—	—	1	—	—	2	—	1	—	29
Tuberculosis of Organs	1	2	1	2	2	2	—	3	2	2	2	2	—	—	2	2	—	3	6	2	2	7	2	3	1	1	2	1	2	—	2	1	2	1	—	63
Disseminated Tuber- culosis	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	6

Work of the Tuberculosis Visitors

There are ten nurses engaged as tuberculosis visitors in the Department, each having charge of a definite part of the city. It is the duty of these visitors to make enquiry into every notified case of tuberculosis and afterwards to keep in touch by periodical visiting and carry out any after-care, etc., that may be needed.

At the end of 1937 there were 5,414 cases of tuberculosis on the current register, all of which have to be visited at more or less regular intervals. The visits paid last year were as follows :

Primary visits (to new cases)	1,445
Routine visits	21,722
Special visits and re-visits	8,610

At the first visit to new cases it was found that 620 patients out of 1,445 were sharing a bed with some other person, while 413 shared a bedroom but had a separate bed. Efforts are always made to get a separate bedroom, or if this is out of the question, at least a separate bed for every patient. Unfortunately, owing to lack of accommodation or unwillingness on the part of the patient, this is not always possible.

It is the duty of these visitors to bring to the notice of the department, every case of overcrowding in relation to pulmonary tuberculosis for representation to the Estates Committee for special treatment, if considered advisable by the medical staff.

Action under Legal Enactments

No action was necessary during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925, relating to tuberculous employees in the milk trade, nor was Section 172 of the Public Health Act, 1936, employed to remove any patient, compulsorily, to a sanatorium.

Disinfection

The disinfection of 1,746 houses was undertaken during the year, where some member of the family had suffered or died from tuberculosis, or changed his or her address.

Care Work

A considerable amount of care work is undertaken from the Centre in Great Charles Street and its scope is varied.

It is found that such work can be usefully fitted into the dispensary organisation if executive officers are interested, tactful and alert, and have the personality and experience which goes far in making a success of care work.

During the year 1937 the tuberculosis visitors made 31,777 visits to the homes of patients, and care work was responsible for many of them. In addition, 1,136 visits were made to the houses of patients by members of the medical staff, many of them for a similar purpose.

In the same period 109 persons received beds and bedding on loan or hire-purchase from the Department. Thirteen sleeping chalets were also loaned to patients. Opportunity for the use of these chalets is largely governed by the fitness of the patient to sleep or rest for prolonged periods out of doors unattended, and by the existence of a suitable site. Beds, bedding and sleeping chalets are loaned in order to provide more suitable accommodation for the patient and to lessen as far as possible the risk of infection to other members of the family.

Through the representations of the Care Department we obtained better housing conditions, or promises of the same, through the Estates Department for the families of eighty-six of our patients. Grants of clothing and other personal items were made to patients in some 202 instances. Also a large number of recommendations for relief and assistance were made to the Public Assistance Department and to various charitable organisations, both within and without the city.

The Care Department has been instrumental in assisting the families of our patients and patients themselves to obtain suitable medical treatment for ailments other than tuberculosis and grants of food have been made to 146 patients.

To prevent overlapping between ourselves and the Public Assistance Department a note is sent from the Centre each week to the Public Assistance Department informing the latter of any grants made to our patients.

In addition to the activities already outlined, the Department has helped patients to obtain dentures, air-rings, nursing utensils, surgical appliances and splints, and has assisted in some instances in the provision of meals. It has obtained money to pay bus and tram fares to enable patients to procure treatment and examination at the Centre.

The tuberculous individual is a damaged life, and however good the results of treatment may have been the sufferer can seldom be regarded as having a 100 per cent economic value to the community. Unless the patient and those responsible for his care realise this fact, and plan carefully the re-adaptation of his subsequent life and employment, tragedy will occur. Unfortunately industrial conditions present few openings for the partially disabled tubercular person, a number of whom are able to work four or six hours daily in suitable environment, at their own pace. To help this type of patient workshops are provided at Yardley Green Road Sanatorium, where ex-patients attend and work at their own pace under medical supervision in hygienic surroundings for a limited number of hours daily. As a result of this a large sum of money obtained from the sale of their work is paid out weekly.

The close intercommunication existing between the Tuberculosis Section and the School Medical Officer's Department and the Infant Welfare Officer, has provided opportunities for the Care Committee to function in a wider sphere than would have been possible otherwise.

Anti-Tuberculosis Centre

Attendances and Examinations

The total number of attendances at the Anti-Tuberculosis Centre during the year 1937, made by patients for the purpose of diagnosis, consultation, observation, advice, and treatment, was 35,510—an increase over the previous year.

The total is made up of 1,854 attendances for supervision, observation and advice ; 10,081 attendances for examination ; 9,865 attendances for X-ray examination ; and 13,710 attendances in the artificial light departments. The X-ray work included 7,190 screen examinations and 2,675 films.

Attendances for supervision, observation and treatment.....	1,854
Attendances for consultation and examination	10,081
Attendances for light treatment :	
Yardley Green Road Sanatorium.....	11,314
151, Great Charles Street	2,396
X-ray examinations (screens)	7,190
X-ray examinations (films)	2,675
TOTAL	35,510

During the year 1937 some 965 new cases of pulmonary tuberculosis were notified to the Medical Officer of Health, and of this number 911, or 94·4 per cent, were examined at the Centre. There were also 154 cases of non-pulmonary tuberculosis notified during the year, of which 129, or 83·7 per cent, were examined at the Centre.

The number of patients on the Dispensary Register on 1st January was 5,079 ; the number of persons transferred to other areas during the year and the cases " lost sight of " numbered 230 ; the number transferred to us from other areas and the " lost sight of " cases returned was seventy-one.

At the end of the year 898 insured persons were receiving domiciliary treatment at the recommendation of the medical staff.

Treatment Recommended

In the following table are set out treatments recommended for patients examined at the Anti-Tuberculosis Centre during the year :

	<i>First Examinations.</i>			<i>Re-examinations.</i>	
	<i>Newly Notified.</i>	<i>Contacts.</i>	<i>Suspects.</i>	<i>Old Cases.</i>	<i>Contacts or Suspects.</i>
Sanatorium treatment	538	38	265	387	10
Dispensary treatment.....	5	1	—	21	—
Supervision	12	1	3	970	1
Out-patient light treatment	19	1	11	31	—
Domiciliary treatment	105	6	39	1580	1
No treatment required	235	1286	1897	275	1080
TOTALS	914	1333	2215	3264	1092

The table above shows that a large percentage of new cases notified during the year received a primary period of sanatorium treatment. This is an advantage to the patient, inasmuch as his physical condition is benefited and he acquires practical experience of the treatment which it would be to his advantage to carry out in a modified form in his own home afterwards.

Classification of patients according to group of disease

The following tables show the classification of the patients examined according to group of disease, Adults and children are shown separately.

ADULTS

	<i>First Examinations.</i>			<i>Re-examinations.</i>	
	<i>Newly Notified.</i>	<i>Contacts.</i>	<i>Suspects.</i>	<i>Old Cases.</i>	<i>Contacts or Suspects.</i>
Group I	54	8	47	532	1
Group II	268	12	143	1576	2
Group III	252	6	89	468	1
Group IV	60	2	14	178	—
No treatment required	186	536	1492	54	230
TOTALS	820	564	1785	2808	234

CHILDREN

	<i>First Examinations.</i>			<i>Re-examinations.</i>	
	<i>Newly Notified.</i>	<i>Contacts.</i>	<i>Suspects.</i>	<i>Old Cases.</i>	<i>Contacts or Suspects.</i>
Group I	11	16	6	220	7
Group II	4	2	4	61	1
Group III	5	—	4	12	—
Group IV	23	1	9	132	—
No treatment required	51	750	407	31	850
TOTALS	94	769	430	456	858

In certain instances patients included in the various groups are suffering from other forms of tuberculosis in addition to pulmonary, but for convenience are classified as pulmonary cases when that type of the disease is present in association with other types.

In the succeeding tables are set out briefly some details of those who were referred to us as contacts and suspects. Amongst those classified here as suspects are many who had been living in contact with known cases of tuberculosis, and who were, therefore, possibly referred to us mainly for this reason.

The contacts have been divided into various groups, and they have also been arranged to show the numbers in each group that came from homes where there had been contact with patients suffering from tuberculosis associated with a positive or negative sputum.

SUSPECTS EXAMINED DURING THE YEAR 1937

Definitely tuberculous	318
No signs of tuberculosis	1,897
TOTAL	2,215

CONTACTS EXAMINED DURING THE YEAR 1937

<i>Ages.</i>	<i>Found TO BE suffering from Tuberculosis.</i>	<i>Found NOT TO BE suffering from Tuberculosis.</i>	<i>Totals.</i>
<i>0 to 5 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	9 or 5.4%	156 or 94.6%	165
Contacts to patients with negative sputum	3 or 2.6%	111 or 97.4%	114
<i>6 to 10 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	5 or 3.6%	135 or 96.4%	140
Contacts to patients with negative sputum	1 or 0.8%	119 or 99.2%	120
<i>11 to 15 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	1 or 0.7%	133 or 99.3%	134
Contacts to patients with negative sputum	2 or 2.0%	94 or 98.0%	96
<i>16 years and over.</i>			
Contacts to patients with sputum containing tubercle bacilli	11 or 3.0%	339 or 97.0%	350
Contacts to patients with negative sputum	15 or 7.9%	175 or 92.1%	190
GRAND TOTALS.....	47 or 3.6%	1,262 or 96.4%	1,309

During the seven years 1931 to 1937, inclusive, 6,943 contacts were examined, 4,361 of these were contacts to patients whose sputum was known to contain tubercle bacilli, the remaining 2,582 were contacts to patients in whose sputum tubercle bacilli were not demonstrated, or to patients from whom sputum could not be obtained. From birth to fifteen years of age the contacts are classified in hemi-decades. It will be seen that in every age period the largest numbers found to be suffering from tuberculosis were detected amongst those who were contacts to positive sputum patients, and the largest percentage of contacts with definite disease was found in the first and second hemi-decades under fifteen

years. Over fifteen years of age the percentage of definite cases of tuberculosis detected amongst contacts is greater than in any of the earlier hemi-decades, whether association occurred with positive or negative sputum patients. These details are shown in the following table :

CONTACTS EXAMINED DURING THE YEARS 1931 to 1937, INCLUSIVE

<i>Ages.</i>	<i>Found TO BE suffering from Tuberculosis.</i>	<i>Found NOT TO BE suffering from Tuberculosis.</i>	<i>Totals.</i>
<i>0 to 5 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	74 or 6.6%	1053 or 93.4%	1127
Contacts to patients with negative sputum	28 or 3.7%	739 or 96.3%	767
<i>6 to 10 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	46 or 5.0%	860 or 95.0%	906
Contacts to patients with negative sputum	18 or 3.0%	606 or 97.0%	624
<i>11 to 15 years.</i>			
Contacts to patients with sputum containing tubercle bacilli	29 or 3.8%	753 or 96.2%	782
Contacts to patients with negative sputum	11 or 2.9%	363 or 97.1%	374
<i>16 years and over.</i>			
Contacts to patients with sputum containing tubercle bacilli	101 or 6.5%	1445 or 93.5%	1546
Contacts to patients with negative sputum	47 or 5.7%	770 or 94.3%	817
GRAND TOTALS.....	354 or 5.0%	6589 or 95.0%	6943

A number of child contacts who presented no definite evidence of active tuberculosis after a primary investigation are given supervision for a number of years, including periodic examinations, the extent and frequency of which are determined by circumstances depending upon social conditions, exposure to infection, and the occurrence of such inter-current diseases as measles, whooping cough, broncho-pneumonia,

pleurisy and phlyctenular conjunctivitis. Re-examination may be undertaken at longer intervals than would otherwise be desirable where there is good liaison, including regular exchange of information between the Tuberculosis Department, the Infant Welfare and Education Department, and where there is satisfactory co-operation with the general practitioner.

The initial investigation of contacts must be both comprehensive and intensive if it is to be effective ; the entire household should be the unit for primary investigation, and initial examinations must never be incomplete or undertaken in a haphazard way as so much will depend upon the thoroughness of the investigation, the correct assessment of findings, and the adoption of measures designed to protect those exposed to continuous and massive doses of infection.

Our figures for contact examinations certainly show the necessity for this phase of dispensary work, and they further suggest that tuberculosis is more frequently discovered amongst child contacts to positive sputum patients than amongst those in contact with negative sputum patients.

The investigation of contacts at the clinic has included a careful physical and radioscopic examination, followed in many instances by an X-ray film. Frequently a few weeks spent in an observation bed at the sanatorium have also been devoted to investigation. An intradermal tuberculin test is applied to practically all children under ten years of age examined as contacts, and to older patients when necessary.

During the year 1,027 patients were tested with tuberculin, the Mantoux method being used, and in a large majority of cases the test was commenced with an injection of 0·1 m.g. of O.T.

In the subsequent table are given some details about the intradermal tests undertaken during the years 1935 to 1937, which numbered 2,660. Some 927 were made on children aged 0 to 5 years, and of these 48·7 per cent were positive ; 1,277 tests made on children between the ages of 6 to 10 years, of which 43·7 per cent were positive ; 456 were undertaken on persons of eleven years of age and over, and amongst these 60 per cent were positive.

INTRADERMAL TESTS, 1935-1937

<i>Ages.</i>		<i>Males.</i>	<i>Females.</i>	<i>Totals.</i>
0 to 5 years :	Positive.....	234	218	452
	Negative	271	204	475
6 to 10 years :	Positive.....	303	255	558
	Negative	399	320	719
11 years and over :	Positive.....	138	136	274
	Negative	88	94	182

FÆCES EXAMINED

If patients in the sanatorium, either for treatment or diagnosis, could produce no sputum, or where sputum was persistently negative for tubercle bacilli, fæces were examined for acid and alcohol fast bacilli.

In a series of 4,070 examinations of fæces for tubercle bacilli from patients at ages of ten years and upwards, with no sputum, or a sputum that was persistently negative for tubercle bacilli, 138, or 3·4 per cent, were found to contain acid and alcohol fast bacilli. In fifty-two of these "no sputum" persisted, in seventy-two the sputum eventually became positive, and in fourteen instances the sputum remained persistently negative.

Sputum was examined at frequent intervals when present by a variety of methods, including those of Ellerman and Erlandsen, and Lowenstein-Jansen. In no instances were fæces examined before the patient had been in sanatorium for at least one week, during which only pasteurised milk was consumed.

GASTRIC LAVAGES

In children under ten years of age, who rarely expectorate, sputum for examination is not always easy to obtain. To meet this the contents of a stomach lavage, taken first thing in the morning, from a fasting stomach, were investigated for acid fast bacilli; whether or not these were found on smear examination alone, some of the centrifuged deposit was injected into a guinea-pig.

To date we have examined 705 stomach lavages of which 69, or 9·8 per cent, gave a positive result for tubercle bacilli. Only eight of these were positive on smear examination, the remaining sixty-one were discovered as the result of a guinea-pig injection.

<i>Ages.</i>	<i>Contact.</i>	<i>Suspect.</i>	<i>Notified.</i>	<i>Total.</i>
0-3 years	10	5	10	25
4-6 years	14	6	7	27
7-10 years	9	5	3	17
TOTALS	33	16	20	69

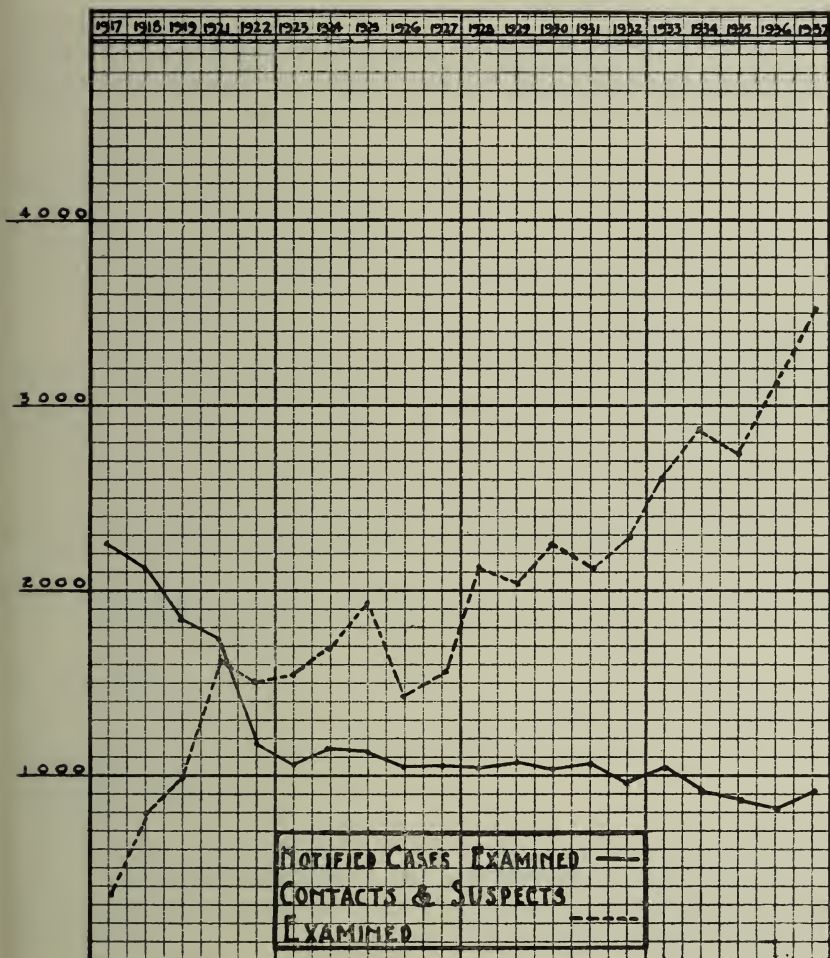
Five were suffering from the adult type of pulmonary tubercle, four from a chronic miliary distribution, three showed evidence of a pleuritis, five were suffering from a tuberculous broncho-pneumonia, and fifty-two were classified as epituberculosis and intra-thoracic glandular involvement.

Three of these patients have died, one with tuberculosis of the adult type and two with a miliary distribution.

“CONTACTS,” “SUSPECTS” AND “NOTIFIED CASES.”

In the graph below are shown the number of “contacts” and “suspects” and “notified cases” examined over a series of years.

PULMONARY TUBERCULOSIS.



The work of the Tuberculosis Department is greatly facilitated when patients in the General Hospitals (voluntary and municipal) who are suffering from tuberculosis, are advised to apply to us for further treatment, and for the examination of their families as “contacts.”

Unless the patient realises that he is suffering from tuberculosis when he leaves the hospital he is sometimes disinclined to accept further treatment in a sanatorium, because he imagines the time spent in the hospital is all the treatment he is likely to require.

During the past year 306 notifications of tuberculosis were received from the municipal and public assistance hospitals, having an aggregate number of beds equivalent to 4,412. Of these patients seventy-nine were acutely ill and could not be examined for a variety of reasons ; 227 were examined, and of this number twenty-three refused treatment ; 157 were admitted to sanatoria.

Family History

A survey of the family history has been made of patients examined who were definitely tuberculous, and the results are shown in the following tables :

ADULTS.

	<i>Newly Notified.</i>	<i>Suspects.</i>	<i>Contacts with Definite Disease.</i>
No family history of tuberculosis . . .	532 or 83·9%	246 or 84·2%	—
Father suffering or suffered from tuberculosis	27 or 26·5%	11 or 24·0%	14 or 18·7%
Mother suffering or suffered from tuberculosis	11 or 10·8%	6 or 13·0%	8 or 10·7%
Brother or sister	33 or 32·3%	12 or 26·0%	19 or 25·3%
One relative other than above, school-fellow or intimate friend..	19 or 18·6%	9 or 19·6%	22 or 29·3%
Two or more relatives	12 or 11·8%	8 or 17·4%	12 or 16·0%
TOTAL	102	46	75

CHILDREN

	<i>Newly Notified.</i>	<i>Suspects.</i>	<i>Contacts with Definite Disease.</i>
No family history of tuberculosis..	26 or 63·4%	17 or 50·0%	—
Father suffering or suffered from tuberculosis	6 or 40·0%	—	7 or 36·8%
Mother suffering or suffered from tuberculosis	5 or 33·3%	3 or 17·6%	3 or 15·8%
Brother or sister	2 or 13·3%	—	3 or 15·8%
One relative other than above, school-fellow or intimate friend..	2 or 13·3%	1 or 6·0%	—
Two or more relatives	—	13 or 76·4%	6 or 31·6%
TOTAL	15	17	19

Dental Treatment

The part-time services of a dental surgeon are utilized at the Centre for the necessary treatment of our patients. The treatment is conservative in type, and consists mainly of extractions, fillings and scalings. Patients who wish to provide their own dentures can do so under conditions advantageous to themselves by arrangement with the dental surgeon. During the year there were 480 extractions, four fillings and one repair. Dentures were supplied in twenty instances. The condition of the teeth and gums of most of our patients seen during the year, so far as dental caries, masticatory power, and the state of the gums were concerned, is shown in the following table :

CONDITION OF TEETH AND GUMS

<i>Number of teeth with infected pulp chambers.</i>			<i>Masticatory power in molars and bicuspid.</i>		
<i>None.</i>	<i>1 to 4.</i>	<i>More than 4.</i>	<i>6 or more.</i>	<i>Less than 6.</i>	<i>None.</i>
3,032	2,807	313	4,786	916	450

STATE OF GUMS

<i>Healthy.</i>	<i>Gingivitis.</i>	<i>Pyorrhœa.</i>
5,381	375	396

Laboratory Work

A very large number of sputum examinations is undertaken during the year on behalf of persons who are referred for an opinion. If the first examination gives a negative result, subsequent and repeated specimens are examined.

As soon as a patient is referred for examination a sputum outfit, with instructions and a request for its early return, is posted. Amongst the new adult patients examined for the first time during the year, in whom a definite diagnosis of pulmonary tuberculosis was made—i.e., 879—there were 506 or 57·5 per cent who presented tubercle bacilli in their sputum. Amongst the total number of children primarily examined in whom a definite diagnosis of pulmonary tuberculosis was made—i.e., fifty-two—there were six, or 11·5 per cent, who presented tubercle bacilli in their sputum, gastric contents, or fæces.

The difficulty of obtaining sputum from children, even when it exists, is recognised, so all children whether admitted to sanatorium for observation or treatment, have the fæces and a gastric lavage examined for acid fast bacilli ; they are also submitted to a Mantoux tuberculin test. All adult patients who enter the observation pavilions have a blood sedimentation test undertaken and have the fæces examined for acid fast bacilli when sputum is persistently negative or cannot be procured. A blood sedimentation test is also undertaken periodically for those being treated by artificial pneumothorax.

At the Centre during the year 5,162 specimens of sputum were examined ; at Yardley Green Road Sanatorium, 6,041 specimens of sputum were examined during the year ; Romsley Hill Sanatorium records show that 1,356 specimens of sputum were examined ; at West Heath Sanatorium 2,178 specimens were examined ; and at Salterley Grange Sanatorium 938 specimens of sputum were examined during the year.

Completed Cases

During the year 1,932 patients completed a course of treatment, or supervision, etc., at the Centre, of whom 1,593 were adults and 339 were children.

During the year under review we examined and reported upon 163 patients who were referred to us by the Regional Medical Officer's Department.

In addition, we examined for the Police Department 206 recruits to ascertain if any definite evidence of tuberculosis was present.

In the next table the working capacity at the commencement and at the end of a completed period of treatment is given for those patients who were examined during the year. The group of disease quoted was determined at the first examination.

WORKING CAPACITY OF PATIENTS ATTENDING CENTRE

	Group I.		Group II.		Group III.		Group IV.	
	Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.
Unimpaired working capacity becoming impaired	5	3	3	1	—	—	2	8
Unimpaired working capacity persisting	—	—	—	—	—	—	—	1
Impaired working capacity becoming unimpaired	137	107	153	26	8	3	42	40
Impaired capacity becoming totally incapacitated	7	1	54	—	15	—	—	—
Impaired capacity persisting	172	64	459	14	91	—	37	25
Total incapacity becoming impaired	25	8	126	2	87	—	26	8
Total incapacity becoming unimpaired	23	4	38	5	8	1	9	11
Total incapacity persisting	1	—	21	1	41	3	3	3
TOTAL	370	187	854	49	250	7	119	96

In the following tables are set out as briefly as possible the main points in connection with an investigation undertaken to ascertain the conditions of those past patients who received treatment at the Centre in the years 1913-1937 inclusive.

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1927.			1927.			1928.			1929.			1930.			1931.															
	Class T.B. plus.			Class T.B. plus.			Class T.B. plus.			Class T.B. plus.			Class T.B. plus.			Class T.B. plus.															
	Class T.B. minus.	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus.)	Class T.B. minus.	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus.)	Class T.B. minus.	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus.)	Class T.B. minus.	Group 1.	Group 2.	Group 3.	Total (Class T.B. plus.)											
Disease arrested { Adults : M. F. Children }	82	10	39	10	59	2	2	6	1	9	8	1	1	—	2	10	2	5	—	7	14	3	5	—	8	12	3	8	1	12	
	63	4	14	7	25	5	—	—	—	—	6	2	2	1	5	4	4	1	—	5	12	—	3	1	4	16	5	5	1	11	
	93	—	—	2	2	15	—	—	1	—	1	8	1	—	1	12	1	—	—	1	10	1	1	1	—	2	33	2	—	2	
Disease not arrested { Adults : M. F. Children }	43	10	51	41	102	8	4	17	2	23	14	5	23	1	29	15	7	17	2	26	31	8	39	5	52	25	10	36	6	52	
	47	5	32	36	73	10	—	10	1	11	16	3	18	2	23	20	7	18	3	28	16	6	20	2	28	31	6	24	5	35	
	31	—	1	1	2	20	1	—	—	—	1	13	1	—	—	1	16	1	—	—	1	13	—	1	—	1	33	3	—	1	4
Condition not ascertained during the year....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Register at 31st December	359	29	137	97	263	60	7	34	4	45	65	13	44	4	61	77	21	42	5	68	96	18	69	8	95	150	27	75	14	116	
Discharged as recovered { Adults : M. F. Children }	1721	178	274	103	555	26	1	7	1	9	19	4	3	—	7	32	8	7	—	15	22	3	5	—	8	13	1	2	—	3	
	1929	125	182	64	371	19	4	5	—	9	18	1	7	3	11	15	4	4	1	9	22	1	3	—	4	17	4	2	1	7	
	2130	35	27	17	79	53	1	—	—	—	1	29	—	1	—	1	50	1	—	—	1	21	—	—	—	—	18	—	—	—	—
Lost sight of, or otherwise removed from Dispensary Register	1894	180	294	208	682	59	9	21	1	31	57	9	22	13	44	60	15	40	8	63	58	7	26	10	43	60	7	44	10	61	
Dead	963	181	940	1648	2769	44	13	169	179	361	47	18	176	162	356	48	25	176	174	375	51	12	180	149	341	50	6	169	175	350	
	731	72	409	859	1340	59	5	90	118	213	31	11	112	102	225	38	15	115	109	239	50	11	103	110	224	43	12	95	129	236	
	196	12	14	53	79	10	2	1	7	10	7	—	4	7	11	8	1	1	5	7	8	1	4	6	11	11	—	5	6	11	
Total written on Dispensary Register.....	9564	783	2140	2952	5875	270	35	233	306	634	208	43	325	287	655	251	69	343	297	709	232	35	321	275	631	212	30	317	321	668	
GRAND TOTALS.....	9923	812	2277	3049	6138	330	42	327	310	679	273	6	369	291	716	328	90	385	302	777	328	53	390	283	726	362	57	392	335	784	
Not now on Dispensary Register and reasons for removal therefrom.																															

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR
PULMONARY TUBERCULOSIS—continued

Condition at the time of the last record made during the year to which the return relates.	1932.						1933.						1934.						1935.						1936.						1937.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Class T. B. plus.				Class T. B. minus.	Class T. B. plus.				Class T. B. minus.	Class T. B. plus.				Class T. B. minus.	Class T. B. plus.				Class T. B. minus.	Class T. B. plus.				Class T. B. minus.	Class T. B. plus.				Class T. B. minus.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).		Group 1.	Group 2.	Group 3.	Total (Class T. B. plus).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
Disease arrested Adults : M. F. Children	24	1	6	1	8	29	4	9	1	14	11	3	3	—	—	6	3	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR
NON-PULMONARY TUBERCULOSIS.

Condition at the time of the last record made during the year to which the return relates.	Previous to 1927.					1927.					1928.					1929.					1930.					1931.					
	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	
Disease arrested..... { Adults: M. F. Children	5	—	1	—	6	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	4	2	—	—	—	2	1	1	—	—	3
	3	2	1	2	8	2	—	—	—	2	—	—	—	—	1	—	—	—	—	1	1	—	1	—	—	1	3	—	—	1	4
	5	3	—	10	18	—	1	—	2	3	1	1	1	3	6	2	1	—	—	1	4	1	2	—	3	6	5	1	—	3	9
Disease not arrested.... { Adults: M. F. Children	4	—	—	—	4	3	—	1	1	5	2	—	1	1	4	3	—	1	—	4	4	1	2	2	2	9	8	—	2	2	12
	9	1	3	1	14	2	—	2	2	6	1	—	1	—	2	3	—	1	2	6	1	1	4	2	8	5	1	1	1	8	
	7	2	4	6	19	4	1	1	1	7	3	1	—	2	6	8	3	2	4	17	1	—	1	2	4	15	2	2	5	24	
Condition not ascertained during the year....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total on Dispensary Register at 31st December	33	8	9	19	69	11	2	4	6	23	7	2	3	6	18	20	4	4	8	36	9	5	7	9	30	37	5	5	13	60	
Transferred to Pulmonary	5	4	2	9	20	3	2	1	1	7	1	1	1	—	3	1	2	3	2	8	1	2	—	3	6	5	3	—	—	8	
Discharged as recovered { Adults: M. F. Children	17	8	2	6	33	7	—	—	—	7	4	2	2	2	10	5	2	2	2	11	1	1	4	4	10	4	1	1	—	6	
	8	2	3	13	26	4	9	2	—	15	3	—	1	2	6	4	2	2	2	10	1	2	2	2	7	1	2	1	3	7	
	19	21	8	81	129	5	5	1	8	19	4	6	2	13	25	14	6	1	14	35	9	3	2	16	30	2	4	—	12	18	
Lost sight of, or otherwise removed from Dispensary Register	11	12	9	19	51	3	—	1	3	7	2	3	—	9	14	6	2	1	4	13	5	6	1	6	18	2	6	2	10	20	
Dead	20	4	4	1	29	5	1	1	—	7	7	1	2	1	11	5	3	2	—	10	4	1	1	—	6	4	—	1	1	6	
	12	2	3	3	20	1	1	2	1	5	1	—	1	1	3	—	2	3	—	5	4	1	1	—	6	1	2	—	3	—	
	7	9	1	4	21	—	3	—	—	3	1	1	—	—	2	3	3	1	2	9	—	1	1	1	3	5	2	—	1	8	
Total written off Dispensary Register.....	94	58	30	127	309	25	19	7	12	63	22	13	8	28	71	37	20	12	24	93	24	15	12	31	82	19	17	5	27	68	
Not now on Dispensary Register and reasons for removal therefrom.....	127	66	39	146	378	36	21	11	18	86	29	15	11	34	89	57	24	16	32	129	33	20	19	40	112	56	22	10	40	128	
GRAND TOTALS.....	127	66	39	146	378	36	21	11	18	86	29	15	11	34	89	57	24	16	32	129	33	20	19	40	112	56	22	10	40	128	

PRESENT CONDITION OF PATIENTS TREATED IN PREVIOUS YEARS SHOWING CONDITION OF THOSE WHO WERE TREATED FOR
NON-PULMONARY TUBERCULOSIS—continued

	1932.					1933.					1934.					1935.					1936.					1937.				
	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.					
Condition at the time of the last record made during the year to which the return relates.																														
Disease arrested { Adults: M. F. Children	2 7 1	— 1 —	— 2 2	— 10 5	2 10 5	3 5 1	— 2 2	— 2 2	1 2 6	4 10 11	4 3 3	— — 1	— — 1	— — 1	2 3 5	1 1 1	— — 1	— — 2	— — 1	— — 1	— — 2	— — 1	— — 1	— — 1	— — 2					
Disease not arrested { Adults: M. F. Children	4 7 11	3 1 2	4 1 1	14 9 4	13 9 18	13 9 27	— 3 3	2 4 2	4 5 4	19 21 36	12 15 14	— 3 3	— 4 2	10 4 2	24 26 25	12 13 15	5 3 4	9 6 3	4 4 2	30 32 38	9 13 23	2 5 4	2 3 3	7 12 43	37 43 36					
Condition not ascertained during the year....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
Total on Dispensary Register at 31st December	32	7	8	11	58	58	9	12	22	101	47	9	17	16	89	43	12	23	32	110	47	52	5	28	33	118				
Transferred to Pulmonary	2	1	2	1	6	7	—	2	4	13	3	—	2	2	7	1	1	1	—	3	1	2	1	—	—	—				
Discharged as recovered { Adults: M. F. Children	2 1 4	3 2 2	— 1 1	6 4 11	— 7 —	1 1 1	— 3 1	— 1 —	— 2 4	1 7 6	1 3 3	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	— — —					
Lost sight of, or otherwise removed from Dispensary Register	8	4	2	6	20	8	4	2	4	18	5	4	2	5	16	—	3	5	3	11	4	1	1	—	2	4				
Dead { Adults: M. F. Children	6 1 4	3 1 —	3 1 —	— 1 5	12 4 —	2 1 3	— 1 —	2 2 —	— — —	4 4 3	2 3 —	— 3 —	1 2 1	1 2 1	4 8 3	1 2 2	1 2 2	1 3 —	1 1 1	2 7 3	1 1 3	4 1 1	— — —	1 1 2	3 2 2					
Total written off Dispensary Register.....	26	15	7	14	62	17	9	7	10	43	14	9	6	10	39	5	7	8	3	23	7	3	2	2	5	12				
GRAND TOTALS.....	58	22	15	25	120	75	18	19	32	144	61	18	23	26	128	48	19	31	35	133	54	55	7	30	38	130				
Not now on Dispensary Register and reasons for removal therefrom.																														
Register on 31st December.																														

SUMMARY

(1) Not less than 94.4 per cent of the total number notified in the city as suffering from pulmonary tuberculosis were examined at the Centre.

(2) The number of patients who were visited and examined in their own homes by the medical staff was 1,136. This figure represented an increase when compared with that of the previous year.

(3) During the year 7,190 screen examinations were made in the radiological section, and films were taken in 2,675 cases. There was an increase both in the number of screen examinations and in the number of films taken, when compared with the figures for the year 1936.

(4) Amongst new patients suffering from pulmonary tuberculosis examined during the year, 57.5 per cent of the adults presented tubercle bacilli in their sputum, and 11.5 per cent of the children. The number of children who gave a positive laboratory finding for tubercle bacilli was about 1 per cent above that recorded for the year 1936, which is probably due to the intensive investigation which these patients undergo.

(5) Of the 931 primary cases suffering from pulmonary tuberculosis examined during the year 15.3 per cent were classified as Group I ; 46.5 per cent were classified as Group II ; and 38.2 per cent as Group III.

(6) Of the patients treated during the periods 1913-1937, some 13,903 presented tubercle bacilli in their sputum. Of this number 23.5 per cent are known to be still alive ; 68.1 per cent are known to be dead, and 8.4 per cent have been lost sight of.

(7) During the same period 13,448 patients whose sputum contained no tubercle bacilli were treated. Of this number 61.3 per cent are known to be alive, 20.6 per cent are known to be dead, and 18.1 per cent have been lost sight of.

(8) During this period (1913-1937) 1,698 patients suffering from non-pulmonary tuberculosis were treated. Of this number 74.2 per cent are known to be still alive, 14 per cent are known to be dead, and 11.8 per cent have been lost sight of.

Sanatoria

Total numbers treated in Sanatoria and duration of stay

During the year 1937 there were 1,660 patients discharged from all the sanatoria. Included in this number are 129 patients suffering from non-pulmonary tuberculosis who were treated in institutions subsidised

by the Public Health Department. Of the 1,660 patients, 866 were adult males, 514 were adult females, and 280 were children.

The average duration of stay was 126·7 days for adult males, 147·7 for adult females, 340·9 days for male children, and 270·2 days for female children, excluding those admitted for observation and who, proving negative, remained only for a short time, and excluding those " hospital " cases with advanced disease who died within a few days of their admission.

Occupational Therapy in Sanatoria

In the Municipal Sanatoria attention is paid to the question of occupational therapy with the object of interesting and employing suitably a certain number of patients whose condition admits of it. The fitness of the patient to engage in occupational therapy is always judged by the medical officer, who has the patient under constant supervision. The occupation to be followed and the number of hours to be devoted to it are both decided upon by the doctor after careful consideration. At Salterley Grange Sanatorium the physical condition of the patients is usually so good, and their disease so early, that temporary employment suitable to their needs can be found in the gardens and upon the estate. At West Heath and Yardley Green Road Sanatoria facilities for occupational therapy have existed for many years. At West Heath the patients are employed in basket making. At Romsley Hill Sanatorium patients are also instructed in basket and leather work.

At Yardley Green Road Sanatorium patients are instructed in basket making, leather work of different kinds, and in mat making, etc., and considerable development has taken place of late.

The children attending the Sanatorium School at Yardley Green Road Sanatorium are taught various forms of handicraft, including leather, pewter work, raffia work, basket making, etc. Many children who are confined to bed are also taught handicrafts. Schooling at Yardley Green Road Sanatorium is also provided for suitable children who are ambulant and immobilised, three school teachers being employed.

Patients admitted to Sanatoria for observation and investigation

The beds utilised for the purpose of observation are at Yardley Green Road Sanatorium. Observation patients are those who, after careful and repeated examinations at the Centre, are found to be indefinite, either as to the absence or presence of tuberculosis or as to its activity or otherwise when present, and are usually admitted for a period varying from four to six weeks. Of the 1,531 patients discharged from the Sanatoria, 198, or 12·9 per cent, were admitted primarily for observation to Yardley Green Road Sanatorium. The medical findings are shown in the following table :

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.						For Non-pulmonary Tuberculosis.						Totals.					
	Stay under 4 weeks.			Stay over 4 weeks.			Stay under 4 weeks.			Stay over 4 weeks.								
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.			
Tuberculous.....	5	5	17	9	2	36						1	—	2	—	14	9	54
Non-tuberculous	10	6	7	32	9	38						—	—	2	4	42	17	49
Doubtful	1	1	9	—	—	—						2	—	—	—	1	1	11
TOTALS	16	12	33	41	11	74						3	—	4	4	57	27	114

RESULTS OF TREATMENT OF PATIENTS DISCHARGED FROM RESIDENTIAL INSTITUTIONS DURING THE YEAR 1937.

Classification on admission to the Institution.	Condition at time of discharge.	Duration of Residential Treatment in the Institution.												Grand Totals.		
		Under 3 months but exceeding 28 days.			3-6 months.			6-12 months.			More than 12 months.				Totals.	
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.			
PULMONARY TUBERCULOSIS	CLASS T.B. MINUS :	Quiescent	9	5	—	6	4	1	1	3	2	—	17	12	10	39
		Not quiescent	82	42	9	35	31	18	10	3	23	—	128	79	67	274
		Died in Institution	3	2	—	2	1	—	—	—	4	—	6	3	4	13
	CLASS T.B. PLUS, GROUP I :	Quiescent	—	—	—	2	1	—	—	—	—	—	2	1	—	3
		Not quiescent	9	4	—	9	5	—	1	2	—	—	19	11	—	31
PULMONARY TUBERCULOSIS	CLASS T.B. PLUS, GROUP II :	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not quiescent	119	38	—	58	40	—	21	34	1	—	201	119	1	321
		Died in Institution	13	4	—	5	2	—	3	7	—	—	23	13	1	37
	CLASS T.B. PLUS, GROUP III :	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not quiescent	98	43	—	59	27	—	19	9	—	—	183	87	1	270
NON-PULMONARY TUBERCULOSIS	BONES AND JOINTS :	Quiescent	2	1	3	1	3	4	—	3	2	—	4	10	19	33
		Not quiescent	2	4	27	1	2	11	3	3	11	1	13	11	57	81
		Died in Institution	—	—	1	—	—	—	—	—	—	—	1	1	2	4
	ABDOMINAL :	Quiescent	—	1	1	—	—	—	—	—	—	—	—	—	1	2
		Not quiescent	—	1	—	—	1	—	—	2	1	—	—	5	3	8
NON-PULMONARY TUBERCULOSIS	OTHER ORGANS :	Quiescent	1	—	—	—	—	—	—	—	—	—	1	—	—	1
		Not quiescent	1	5	—	2	—	—	1	2	—	—	4	7	1	12
		Died in Institution	1	—	—	—	—	—	—	—	—	—	1	—	—	1
	PERIPHERAL GLANDS :	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not quiescent	1	1	2	—	1	2	—	1	3	—	1	2	8	2
NON-PULMONARY TUBERCULOSIS	Totals (non-Pulmonary)	Quiescent	7	13	34	4	7	18	4	11	17	10	25	39	92	156
		Not quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Died in Institution	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTE.—“Quiescent” disease indicates that there are no symptoms of tuberculosis, and no signs of tuberculous disease except such as are compatible with a completely healed lesion, and in which sputum, if present, is free from tubercle bacilli.

Classification of patients' disease

In this table the patients are scheduled according to the classification of the Ministry of Health, as follows :

GROUP I	Cases with slight constitutional disturbance, if any, e.g., there should not be marked acceleration of pulse nor elevation of temperature, except of very transient duration ; gastro-intestinal disturbance or emaciation, if present, should not be excessive. The obvious physical signs should be of very limited extent, as follows : Either present in one lobe only, and in the case of an apical lesion of one upper lobe not extending below the second rib in front and not exceeding an equivalent area in any one lobe ; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes and should not extend below the clavicle and the spine of the scapula. No complication (tuberculous or otherwise) of prognostic gravity should be present. A small area of dry pleurisy should not exclude a case from this group.
GROUP III....	Cases with profound systemic disturbance or constitutional deterioration ; with marked impairment of function either local or general, and with little or no prospect of recovery. All cases with grave complications, whether tuberculous or not, should be classified in this group—e.g., diabetes, tuberculosis of larynx or intestines, etc.
GROUP II	All cases which cannot be placed in Groups I and III. Patients suffering from non-pulmonary tuberculosis are classified according to the site of the lesion and are placed under Group IV.

Sputum results after Sanatorium treatment

Of the 1,291 adult patients discharged from the Sanatoria suffering from pulmonary tuberculosis during the year, 962, or 74·5 per cent, presented tubercle bacilli in their sputum whilst in the Sanatoria.

<i>Sanatoria.</i>	No sputum persist- ing.	No sputum becom- ing T.B. -	No sputum becom- ing T.B. +	T.B. - persist- ing.	T.B. - becom- ing T.B. +	T.B. - becom- ing No sputum.	T.B. + persist- ing.	T.B. + becom- ing T.B. -	T.B. + becom- ing No sputum.
Yardley Green Road Sanatorium	74	1	—	79	—	7	357	21	6
Romsley Hill Sanatorium	13	—	—	21	—	10	177	20	14
Salterley Grange Sanatorium	30	4	—	24	—	23	61	14	11
West Heath Sanatorium	25	—	—	14	—	4	253	9	19
TOTALS	142	5	—	138	—	44	848	64	50

In the following table the occupation of both male and female patients are shown :

	<i>Males.</i>	<i>Females.</i>
Outdoor occupations	56	1
Domestic occupations	19	217
Sedentary occupations	64	54
Commercial occupations	28	12
Engineering occupations	158	72
Metal trades	187	40
Building trades	56	—
Other trades	244	83
TOTALS.....	812	479

Gain or loss in weight

Amongst a total of 1,291 patients discharged from Sanatoria after treatment, many of whom were advanced hospital cases admitted for the purpose of prophylaxis, 122, or 9·4 per cent, remained stationary, and 1,110 or 85·9 per cent gained weight in amounts varying from 1-lb. to 40-lbs.

Working Capacity

The working capacity of patients is shown in the following tables :

	<i>Adult Males.</i>	<i>Adult Females.</i>	<i>Children.</i>	<i>Total.</i>
Unimpaired capacity for work becoming impaired	1	—	—	1
Impaired working capacity becoming unimpaired	6	9	19	34
Impaired capacity for work persisting ..	266	199	38	503
Impaired capacity for work becoming totally incapacitated.....	20	16	1	37
Total incapacity for work becoming impaired	150	93	16	259
Total incapacity for work becoming unimpaired	4	4	3	11
Total incapacity for work persisting ..	63	41	4	108
Died in sanatoria	202	117	14	333
TOTALS.....	712	479	95	1,286

SUMMARY

(1) The average duration of patients' stay for all Sanatoria was 126·7 days for adult males, 147·7 days for adult females, 340·9 days for male children, and 270·2 days for female children.

(2) Of the patients from all Sanatoria no less than 12·9 per cent passed through the observation beds at Yardley Green Road Sanatorium.

(3) 43·8 per cent of the patients were in Group III, 37·5 per cent were in Group II, 13·7 per cent in Group I, and 4·9 per cent were in Group IV.

(4) There were 74·5 per cent of all patients discharged from Sanatoria who presented tubercle bacilli in their sputum whilst in the Sanatorium.

(5) 1,110, or 85·9 per cent of all patients discharged from Sanatoria gained weight in amounts varying from 1-lb. to 40-lbs.

(6) Some 425, or 51 per cent, of the deaths from tuberculosis occurred in "hospital" beds in various Sanatoria and hospitals controlled by the Public Health Committee.

Treatment in the Light Clinic

Patients completing treatment during 1937

The total number of patients completing a satisfactory course of treatment during the year 1937 was fifty-seven.

The number includes twenty-five adult males, fifteen adult females, ten male children, and seven female children.

These completed cases consisted of :

	<i>Adult Males.</i>	<i>Adult Females.</i>	<i>Male Children.</i>	<i>Female Children.</i>
Tuberculous bones and joints ..	9	6	2	3
Tuberculosis of abdomen	2	3	2	—
Cervical adenitis	5	4	6	3
Lupus	2	1	—	—
Other organs	7	1	—	1
TOTALS	25	15	10	7

Patients continuing treatment

On the 31st December, 1937, 140 were continuing treatment in the light clinics and many showed an improvement in their condition.

VENEREAL DISEASES

The City Council maintain three centres for the treatment of venereal diseases, one for men, women and children at the Birmingham General Hospital; one for children at the Children's Hospital; and one for mothers and young children in the same building as that occupied as a maternity and child welfare centre in Lancaster Street. In addition, cases of venereal disease come under treatment at the venereal diseases clinic maintained in connection with the women's venereal diseases ward in the Birmingham Infirmary.

At these centres 326 new cases of syphilis, one of soft chancre, 1,011 of gonorrhœa and 2,233 cases suffering from conditions other than venereal disease were seen in 1937 as follows :

	<i>New Cases.</i>			<i>Other Conditions.</i>
	<i>Syphilis.</i>	<i>Soft Chancre.</i>	<i>Gonorrhœa.</i>	
General Hospital.....	273	1	955	1,368
Children's Hospital.....	15	—	2	40
Lancaster Street	22	—	41	791
Birmingham Infirmary	16	—	13	34
TOTAL	326	1	1,011	2,233

The new cases coming under treatment for the first time, and not having had previous treatment at other Centres, are indicated in the following table. It should be noted that cases who, attending our clinics for the first time, have been treated at clinics elsewhere, have been excluded for each year :

	<i>Syphilis.</i>	<i>Soft Chancre.</i>	<i>Gonorrhœa.</i>	<i>Other Conditions.</i>
1926....	537	2	848	729
1927....	622	4	952	861
1928....	592	10	1,146	920
1929....	523	9	1,200	803
1930....	541	14	1,257	1,076
1931....	504	1	985	1,082
1932....	512	10	1,066	1,109
1933....	454	19	944	1,248
1934....	*511	*25	*998	*1,425
1935....	428	20	882	1,887
1936....	353	7	971	1,988
1937....	326	1	1,011	2,233

*These figures include those for the Birmingham Infirmary for the first time.

The total attendances for the last ten years were :

1928.....	78,261	1933.....	103,925
1929.....	78,098	1934.....	*110,716
1930.....	88,589	1935.....	121,788
1931.....	93,280	1936.....	124,387
1932.....	100,313	1937.....	125,408

*These figures include those from Birmingham Infirmary for the first time.

These figures indicate a continuance of the process noted for some years past :

- (a) That the clinics are being visited to a steadily increasing extent by patients who prove not to have venereal disease ; that is to say, they are being used in a truly preventive sense by both medical practitioners and the general public.
- (b) That over a series of years there has been some tendency towards reduction in the number of cases of syphilis. The trend in regard to new cases of gonorrhœa is by no means so clear. On the whole, the incidence appears almost stationary.
- (c) That the patients needing treatment attend with a steadily improving persistence, and undergo a correspondingly thorough treatment, as indicated by the growth in attendances in successive years.

Further particulars of the work done at the Centres in 1937 are as follows :

	<i>Syphilis.</i>	<i>Soft Chancere.</i>	<i>Gonorrhœa.</i>	<i>Other Conditions.</i>
No. of cases under treatment, Jan. 1st, 1937....	1,196	3	676	291
New cases under treatment during year	326	1	1,011	2,233
Total attendances.....	31,140	14	70,753	23,501
No. discharged after completion of treatment and observation.....	119	2	620	2,201
No. transferred to other centres.....	111	1	171	8
No. who ceased to attend : Before completion of treatment	193	1	259	—
After completion of treatment, but before final tests as to cure..	49	—	168	—

No. of cases of congenital syphilis treated :	
Under 1 year of age	13
Aged 1-5 years.....	5
Aged 5-15 years	13
Aged 15 years and over.....	27
TOTAL	58

Publicity and Educational Work

A grant of £420 was paid by the Public Health Committee towards the expenses of the Birmingham Branch of the British Social Hygiene Council. The work of this branch is invaluable to the city, both from the point of view of advice to the individual needing social help, and from that of the systematic instruction of the general public in the ideals and practice of social hygiene. The audiences to whom lectures and addresses are given by its lecturers are ever growing in scope and in numbers.

During the year addresses were given to approximately 18,000 persons, the talks including courses of lectures and general addresses in factories and to social and religious organisations, together with special instructional lectures to a large variety of special bodies. A large amount of personal advice continues to be given by the officers of the branch.

Sixteen courses of publicly advertised lectures for men and women were provided by officers of the Birmingham Branch.

The branch also publishes pamphlets dealing with the objects of the work.

YEAR	Population Estimated to middle of each year.	Birth-rate.	Death-rate.	Infant Mortality rate per 1,000 Births.	Enteric Fever.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Tuberculosis.		Cancer.	Diseases of Nervous System.	Diseases of System.	Circulatory System.	Respiratory System.	Diseases of Digestive System.	Diseases of Genito- Urinary System.	Suicides.	Other Violence.	Congenital Debility, Premature Birth, Malformations, etc. (under 1).	Dysentery (under 2).	Puerperal Fever.	Other Accidents of Child Birth.
1901	760,989	31.4	17.5	176	.18	—	.49	.23	.39	.91	.16	1.47	.52	.73	?	?	?	3.50	?	?	?	.11	.42	?	1.47	2.52
1902	768,757	31.2	16.3	144	.17	.01	.31	.43	.47	.24	.12	1.38	.37	.68	1.36	1.68	2.48	2.93	?	?	?	.08	.43	?	1.24	2.19
1903	776,604	30.9	15.8	147	.10	.02	.32	.45	.48	.23	.10	1.38	.48	.74	1.37	1.86	2.49	3.24	?	?	?	.11	.45	?	1.24	2.63
1904	784,532	31.0	17.7	179	.08	—	.31	.11	.75	.21	.13	1.30	.45	.74	1.36	1.94	2.69	3.36	?	?	?	.09	.49	?	1.40	1.98
1905	792,540	29.0	15.1	141	.06	.00	.38	.08	.26	.17	.14	1.26	.41	.74	1.36	1.94	2.69	3.36	?	?	?	.10	.44	?	1.31	2.22
1906	800,631	29.4	15.9	157	.12	.01	.36	.22	.44	.20	.13	1.34	.45	.74	1.36	1.94	2.69	3.19	?	?	?	.10	.44	?	1.32	2.31
1907	808,803	28.8	15.3	133	.09	—	.51	.15	.39	.20	.16	1.14	.37	.83	1.36	1.94	2.69	3.07	?	?	?	.09	.44	?	1.11	2.98
1908	817,060	29.1	15.3	130	.07	—	.08	.15	.40	.20	.31	1.24	.35	.80	1.36	1.94	2.69	3.07	?	?	?	.10	.44	?	1.51	1.85
1909	825,400	27.4	15.1	121	.04	—	.82	.15	.23	.34	.11	1.22	.30	.85	1.36	1.94	2.69	2.92	?	?	?	.10	.44	?	0.50	2.29
1910	833,826	26.8	13.2	115	.04	—	.05	.14	.34	.13	.11	1.08	.32	.89	1.36	1.94	2.69	2.92	?	?	?	.10	.44	?	1.02	1.55
1911	842,337	26.1	15.0	131	.06	.00	.36	.14	.36	.18	.09	1.16	.35	.84	1.36	1.94	2.69	2.82	?	?	?	.10	.44	?	1.12	2.16
1912	850,947	26.1	14.1	111	.04	—	.47	.10	.17	.13	.12	1.28	.24	.93	1.36	1.94	2.69	2.51	?	?	?	.07	.41	?	1.64	2.18
1913	859,644	27.3	14.9	129	.04	—	.67	.18	.39	.12	.12	1.28	.34	.93	1.36	1.94	2.69	2.51	?	?	?	.07	.41	?	1.22	2.03
1914	862,534	26.4	14.8	122	.02	—	.35	.17	.35	.19	.13	1.19	.27	.88	1.36	1.94	2.69	2.48	?	?	?	.11	.43	?	1.86	2.01
1915	891,234	23.8	14.4	118	.04	—	.47	.07	.14	.15	.16	1.28	.27	1.00	1.36	1.94	2.82	2.82	?	?	?	.05	.45	?	1.65	1.79
1916	895,678	23.1	13.5	104	.03	.00	.48	.14	.25	.18	.13	1.24	.24	1.00	1.36	1.94	2.64	2.60	?	?	?	.05	.45	?	1.56	1.96
1917	900,000	19.7	12.6	101	.01	—	.11	.03	.42	.13	.16	1.24	.24	1.00	1.29	1.88	2.10	2.60	?	?	?	.05	.45	?	1.50	1.94
1918	870,000	19.4	15.2	99	.01	—	.08	.01	.32	.18	2.50	1.35	.25	1.02	1.23	1.87	2.10	2.60	?	?	?	.05	.45	?	1.50	1.94
1919	910,000	20.9	13.0	84	.01	—	.20	.05	.06	.14	1.15	1.10	.18	1.01	1.07	1.73	2.67	2.85	?	?	?	.05	.45	?	1.72	1.31
1920	910,000	27.6	12.6	83	.01	—	.16	.12	.20	.22	.46	.93	.17	1.12	1.12	1.73	2.16	2.46	?	?	?	.05	.45	?	1.45	1.45
1921	919,683	24.1	11.3	83	.01	—	.18	.04	.23	.16	.88	1.18	.22	1.03	1.17	1.79	2.54	2.88	?	?	?	.08	.36	?	1.58	1.48
1922	927,844	21.5	12.1	86	.00	—	.09	.04	.38	.10	.45	.97	.16	1.18	1.04	1.85	2.38	2.66	?	?	?	.12	.26	?	1.26	1.67
1923	936,079	20.4	11.6	82	.00	—	.20	.04	.10	.15	.28	.92	.16	1.18	1.04	1.85	2.38	2.66	?	?	?	.12	.26	?	1.26	1.67
1924	944,386	19.2	11.6	83	.01	—	.08	.02	.19	.10	.45	.97	.16	1.18	1.04	1.85	2.38	2.66	?	?	?	.12	.26	?	1.26	1.67
1925	952,766	18.8	11.7	78	.01	—	.08	.02	.19	.10	.45	.97	.16	1.18	1.04	1.85	2.38	2.66	?	?	?	.12	.26	?	1.26	1.67
1926	961,222	18.7	11.3	73	.00	—	.13	.03	.23	.10	.39	.98	.16	1.27	0.98	2.12	1.97	2.15	?	?	?	.10	.31	?	1.96	2.15
1927	969,752	17.8	11.3	73	.00	—	.08	.01	.13	.12	.27	.94	.15	1.21	1.00	1.85	2.10	2.15	?	?	?	.10	.31	?	1.64	1.85
1928	976,500	17.6	11.6	75	.01	—	.13	.01	.07	.06	.41	.89	.12	1.26	1.07	2.12	1.88	2.15	?	?	?	.12	.32	?	2.29	1.84
1929	981,000	17.1	13.5	79	.00	.00	.20	.01	.17	.07	.13	.86	.13	1.35	0.94	2.41	1.86	2.15	?	?	?	.16	.40	?	1.86	1.97
1930	982,000	17.7	10.8	60	.01	—	.06	.02	.13	.09	.10	.86	.13	1.35	0.94	2.41	1.86	2.15	?	?	?	.16	.40	?	1.86	1.97
1931	1,001,300	16.9	11.7	71	.00	.00	.18	.01	.12	.09	.41	.91	.13	1.43	0.88	2.57	2.26	2.60	?	?	?	.16	.42	?	1.86	2.44
1932	1,017,500	16.3	11.3	67	.00	—	.05	.01	.09	.06	.27	.92	.14	1.46	0.77*	2.90	1.32	2.60	?	?	?	.16	.42	?	1.86	2.44
1933	1,023,500	14.7	11.0	66	.00	—	.05	.01	.13	.03	.36	.83	.10	1.43	0.88	2.57	2.26	2.60	?	?	?	.16	.42	?	1.86	2.44
1934	1,028,000	15.3	11.0	68	.01	—	.02	.01	.03	.03	.44	.85	.11	1.43	0.76*	3.04	1.32	2.60	?	?	?	.16	.42	?	1.86	2.44
1935	1,033,000	15.4	10.9	64	.00	—	.02	.01	.11	.08	.18	.71	.08	1.43	0.76*	3.04	1.32	2.60	?	?	?	.16	.42	?	1.86	2.44
1936	1,038,000	15.8	11.3	67	.00	—	.08	.01	.08	.08	.15	.71	.08	1.52	0.72*	3.14	1.09	2.67	?	?	?	.16	.42	?	1.86	2.44
1937	1,043,000	16.3	11.7	60	.00	—	.07	.01	.08	.06	.23	.80	.10	1.46	0.68*	3.43	1.35	2.62	?	?	?	.16	.42	?	1.86	2.44
1938	1,043,000	16.3	11.7	60	.00	—	.07	.01	.08	.06	.23	.80	.10	1.46	0.68*	3.43	1.35	2.62	?	?	?	.16	.42	?	1.86	2.44

*Exclusive of General Paralysis.

TABLE II—CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1937

No.	CAUSES OF DEATH.	Sex.	AGES AT DEATH.										All Ages.	
			0-	1-	2-	5-	15-	25-	45-	65-	75-			
1	Typhoid and Paratyphoid Fever	M.	—	—	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	1	—	—	—	—	—	1
1a	Small Pox	M.	—	—	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	—	—	—	—	—	—	—
2	Measles	M.	11	20	6	4	—	—	—	—	—	—	—	41
		F.	6	11	12	2	—	1	—	—	—	—	—	32
3	Scarlet Fever	M.	—	2	—	1	2	—	—	—	—	—	—	5
		F.	—	—	1	1	2	—	—	—	—	—	—	4
4	Whooping Cough	M.	6	4	2	—	—	—	—	—	—	—	—	12
		F.	9	2	2	3	—	—	—	—	—	—	—	16
5	Diphtheria	M.	4	8	5	16	1	—	1	—	—	—	—	35
		F.	—	1	14	28	1	1	—	—	—	—	—	45
6	Influenza	M.	8	1	1	3	4	31	90	37	42	217	217	
		F.	6	4	2	6	7	28	62	48	41	204	204	
6a	Poliomyelitis	M.	—	—	—	—	—	1	—	—	—	—	—	1
		F.	—	—	—	—	—	—	—	—	—	—	—	—
7	Encephalitis Lethargica	M.	—	—	—	—	2	—	3	—	—	—	—	5
		F.	—	—	—	—	3	5	5	3	—	—	—	16
8	Cerebro-Spinal Fever ..	M.	2	2	—	1	2	1	—	—	—	—	—	8
		F.	2	—	1	2	2	1	—	—	—	—	—	8
9	Tuberculosis of Respiratory System.....	M.	2	2	4	3	52	160	216	31	8	478	478	
		F.	3	3	4	8	80	119	54	7	—	278	278	
10a	Tubercular Meningitis..	M.	4	1	2	3	4	1	—	—	—	—	—	15
		F.	3	—	4	2	3	—	1	—	—	—	—	13
10b	Tuberculosis of the Abdomen	M.	—	—	1	2	4	—	—	—	1	—	—	8
		F.	—	—	—	—	1	—	—	—	—	—	—	1
10c	Tuberculosis of Spinal Column	M.	—	—	—	—	—	1	3	—	—	—	—	4
		F.	—	—	—	—	—	—	1	—	—	—	—	1
10d	Tuberculosis of Joints..	M.	—	—	—	1	—	1	—	—	—	—	—	2
		F.	—	—	—	—	—	—	—	—	—	—	—	—
10e	Disseminated Tuberculosis	M.	—	1	3	3	—	2	—	—	—	—	—	9
		F.	—	2	2	3	4	1	2	1	—	—	—	15
10f	Tuberculosis of Glands and other parts	M.	—	1	—	—	—	2	5	1	—	—	—	9
		F.	—	—	—	—	—	1	1	—	1	—	—	3
11	Syphilis.....	M.	1	—	—	—	1	8	41	12	1	64	64	
		F.	4	—	—	—	—	3	10	1	—	—	—	18
12	Gen. Paralysis of Insane, Tabes Dorsalis	M.	—	—	—	—	—	7	18	5	4	34	34	
		F.	—	—	—	—	—	—	4	—	—	—	—	4
13a	Cancer of Buccal Cavity and Pharynx	M.	—	—	—	—	—	2	39	34	10	85	85	
		F.	—	—	—	1	—	—	7	2	4	14	14	
13b	Digestive Organs, Peritoneum	M.	—	—	1	—	2	15	216	174	74	482	482	
		F.	1	—	—	—	—	20	147	114	92	374	374	
13c	Respiratory Organs ..	M.	—	—	—	—	1	19	91	27	8	146	146	
		F.	—	1	—	2	—	4	22	11	8	48	48	
13d	Female Organs	M.	—	—	—	—	—	—	—	—	—	—	—	—
		F.	—	—	—	—	—	17	71	36	17	141	141	
13e	Breast	M.	—	—	—	—	—	—	2	—	1	3	3	
		F.	—	—	—	—	—	16	95	40	28	179	179	
13f	Male Genito Urinary Organs	M.	—	1	—	—	1	4	28	39	27	100	100	
		F.	—	—	—	—	—	—	—	—	—	—	—	—
13g	Skin	M.	—	—	—	—	—	3	—	2	—	5	5	
		F.	—	—	—	—	—	—	3	1	3	7	7	
13h	Other Organs	M.	—	—	1	1	3	6	22	21	5	59	59	
		F.	—	—	—	—	2	4	20	14	9	49	49	

(Table continued on following page.)

TABLE II—CAUSES OF DEATH AT DIFFERENT AGE PERIODS IN 1937
—continued

No.	CAUSES OF DEATH.	Sex.	AGES AT DEATH.										All Ages.
			0-	1-	2-	5-	15-	25-	45-	65-	75-		
14	Diabetes	M.	—	—	—	1	1	5	20	29	10	66	
		F.	—	—	—	1	—	5	32	41	14	103	
14a	Rheumatic Fever	M.	—	—	2	6	3	5	2	—	—	18	
		F.	—	—	2	5	6	3	11	3	—	30	
14b	Chronic Rheumatism, Osteo-Arthritis	M.	—	—	—	—	—	1	11	15	10	37	
		F.	—	—	—	—	1	1	20	19	15	56	
15	Cerebral Hæmorrhage, etc.	M.	1	—	—	—	—	6	42	71	52	172	
		F.	—	—	—	—	—	6	74	94	106	280	
15a	Other Nervous Diseases and Sense Organs ..	M.	36	12	5	22	13	32	33	21	7	181	
		F.	32	9	7	4	10	13	29	15	14	133	
16	Heart Disease	M.	—	1	2	6	8	54	397	412	369	1249	
		F.	4	—	2	4	30	71	296	476	687	1570	
17	Aneurysm.....	M.	—	—	—	—	—	5	10	6	—	21	
		F.	—	—	—	—	1	4	11	2	1	19	
18	Arterio-Sclerosis and other Circulatory Dis.	M.	—	—	—	—	—	5	93	164	128	390	
		F.	—	—	—	—	1	6	88	97	110	302	
19	Bronchitis.....	M.	7	2	2	—	1	3	44	63	84	206	
		F.	9	1	—	—	—	3	15	37	97	162	
20	Pneumonia : All Forms	M.	86	31	10	12	18	80	214	82	60	593	
		F.	65	18	13	8	3	40	71	54	54	326	
21	Other Respiratory Dis.	M.	5	—	1	—	3	15	41	20	16	101	
		F.	1	—	—	2	—	9	26	16	19	73	
22	Peptic Ulcer	M.	—	—	—	—	1	22	52	21	8	104	
		F.	—	—	—	—	—	1	9	6	2	18	
23	Diarrhœa and Enteritis	M.	43	—	2	—	—	3	6	1	1	56	
		F.	38	6	—	1	—	5	5	1	4	60	
24	Appendicitis.....	M.	—	—	4	5	5	10	9	6	4	43	
		F.	—	—	2	8	6	6	9	5	3	39	
25	Cirrhosis of Liver	M.	—	—	—	—	—	2	13	5	1	21	
		F.	—	—	—	—	—	—	7	1	5	13	
26	Other Diseases of Liver, etc.	M.	—	—	—	—	—	3	7	3	3	16	
		F.	—	—	—	—	2	1	16	9	12	40	
27	Other Digestive Disease ^s	M.	4	2	2	—	1	10	31	16	18	84	
		F.	9	—	2	7	3	8	23	22	21	95	
28	Acute and Chronic Nephritis	M.	2	1	1	4	8	17	54	38	19	144	
		F.	—	—	—	1	7	24	47	32	22	133	
28a	Other Genito-Urinary Diseases	M.	6	—	2	2	1	5	33	48	42	139	
		F.	2	2	—	1	—	20	16	8	3	52	
29	Puerperal Sepsis	M.	—	—	—	—	—	—	—	—	—	—	
		F.	—	—	—	—	3	9	1	—	—	13	
30	Other Puerperal Causes	M.	—	—	—	—	—	—	—	—	—	—	
		F.	—	—	—	—	5	33	1	—	—	39	
31	Congenital Debility, Premature Birth, Mal- formations, etc.	M.	322	2	—	2	1	1	—	—	—	328	
		F.	240	—	—	—	2	—	—	—	—	242	
32	Senility	M.	—	—	—	—	—	—	1	22	60	83	
		F.	—	—	—	—	—	—	1	13	121	135	
33	Suicide	M.	—	—	—	—	3	23	47	19	7	99	
		F.	—	—	—	—	1	14	38	8	1	62	
34	Other Violence	M.	1	7	11	24	40	45	49	34	33	244	
		F.	3	4	9	16	12	13	27	28	52	164	
35	Other Causes	M.	14	5	4	15	15	35	42	19	9	158	
		F.	14	1	4	8	7	32	71	34	18	189	
	All Causes	M.	565	106	74	137	201	651	2026	1498	1122	6380	
		F.	451	65	83	124	205	549	1449	1299	1594	5819	

TABLE III—BIRTHS AND DEATHS REGISTERED IN, OR BELONGING TO, EACH WARD DURING THE YEAR ENDING DECEMBER 31ST, 1937

No.	CAUSES OF DEATH.	Sex.	Acoc's Green.	All Saints.	Aston.	Balsall Heath.	Bromford.	Duddeston and Nechells.	Edgbaston.	Erdington.	Gravelly Hill.	Hall Green.	Handsworth.	Harborne.	King's Norton.	Ladywood.	Lozells.	Market Hall.	Moseley and King's Heath.	Northfield.	Perry Barr.	Rotton Park.	St. Bartholomew's.	St. Martin's and Deritend.	St. Mary's.	St. Paul's.	Salley.	Sandwell.	Selly Oak.	Small Heath.	Soho.	Sparkbrook.	Sparkhill.	Stechford.	Washwood Heath.	Vardley.	Not Located.	TOTAL OF CITY.	
	All Causes	M.	153	185	255	226	160	243	151	153	156	174	163	136	164	194	229	146	227	163	168	181	270	269	230	201	180	112	178	187	160	219	222	137	164	147	77	6380	
1	Typhoid and Paratyphoid Fever ..	F.	159	185	226	240	109	214	178	139	168	144	156	136	166	166	207	118	241	146	144	167	170	231	201	202	135	106	159	156	176	212	212	125	153	124	48	5819	
1a	Small Pox	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	Measles	F.	—	1	2	2	1	5	1	1	1	1	—	2	1	—	2	1	1	3	2	—	1	2	3	3	—	—	—	—	—	2	—	—	—	—	—	—	—
3	Scarlet Fever	F.	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	1	1	1	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—
4	Whooping Cough ..	F.	—	1	1	—	1	—	—	—	—	—	—	1	1	—	1	1	1	1	1	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—
5	Diphtheria	F.	1	2	1	1	2	2	1	1	1	2	—	—	—	4	4	—	2	2	2	2	1	3	5	2	—	—	—	—	3	1	—	—	—	—	—	—	—
6	Influenza	F.	5	4	8	10	5	8	6	3	4	5	5	3	6	9	8	7	6	4	2	3	6	5	5	8	10	3	7	6	5	9	7	10	9	5	4	1	217
6a	Poliomyelitis	F.	2	3	5	5	1	4	8	3	9	4	7	11	6	8	11	4	8	7	2	5	—	8	8	3	3	12	1	10	13	3	10	3	5	6	1	204	
7	Encephalitis Lethargica	F.	—	—	—	—	—	—	1	—	1	—	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Cerebro-Spinal Fever	F.	—	1	1	—	—	—	—	—	1	—	1	1	1	—	1	—	—	—	2	—	—	—	1	2	—	—	—	2	—	—	—	—	—	—	—	—	—
9	Tuberculosis of Respiratory System	F.	11	15	23	15	16	17	3	11	9	18	6	7	5	15	21	7	9	12	13	18	21	34	14	29	10	5	4	16	12	28	16	9	15	5	—	—	
10a	Tubercular Meningitis	F.	10	16	7	9	10	18	4	5	2	9	3	6	6	10	5	6	5	12	11	8	9	9	14	11	7	2	10	9	5	9	8	10	3	9	1	—	—
10b	Tuberculosis of the Abdomen	F.	—	—	—	—	—	2	1	—	—	—	—	—	—	—	2	—	2	1	—	—	1	1	1	1	2	—	—	1	—	2	1	—	—	—	—	—	—
10c	Tuberculosis of Spinal Column	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
10d	Tuberculosis of Joints	F.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10e	Disseminated Tuberculosis	F.	1	—	—	—	1	—	—	—	—	—	—	2	1	—	1	1	1	—	1	—	1	1	2	1	—	—	—	1	—	—	—	—	—	—	—	—	—
10f	Tuberculosis of Glands & other parts	F.	—	—	1	1	—	1	—	—	—	—	—	—	1	1	1	1	1	1	1	1	1	1	2	1	—	—	—	—	1	—	—	—	—	—	—	—	—
11	Syphilis	F.	1	—	2	—	—	6	—	—	2	4	2	—	1	—	3	4	1	1	5	1	5	4	3	1	2	—	1	—	3	1	1	2	1	4	1	—	—

(Table continued on following page.)

No.	CAUSES OF DEATH.	Sex.	Acco's Green.	All Saints.	Aston.	Balsall Heath.	Bromford.	Duddeston and Nechells.	Edbaston.	Erdington.	Gravelly Hill.	Hall Green.	Handsworth.	Harborne.	King's Norton.	Ladywood.	Lozells.	Market Hall.	Moseley and King's Heath.	Northfield.	Perry Barr.	Rotton Park.	St. Bartholomew's.	St. Martin's and Denton.	S. Mary's.	St. Paul's.	Salley.	Sandwell.	Selly Oak.	Small Heath.	Soho.	Sparbrook.	Sparkhill.	Stechford.	Washwood Heath.	Vardley.	Not Local.	TOTAL OF CITY.		
12	Gen. Paralysis of Insane, Tabes Dorsalis	M.	—	1	1	1	1	1	—	1	1	—	—	3	—	—	2	1	2	2	—	—	—	—	4	1	1	1	1	2	—	2	—	2	1	1	2	—	2	34
13a	Cancer of Buccal Cavity & Pharynx	M.	1	2	1	1	1	4	2	—	1	2	1	2	1	1	1	1	1	1	—	—	—	7	1	1	2	2	2	3	—	5	—	1	6	1	2	3	85	
13b	Digestive Organs, Peritoneum	F.	12	25	13	9	1	18	9	18	9	7	14	12	12	22	13	11	20	9	6	15	16	17	15	10	7	10	23	7	16	17	8	13	11	11	482			
13c	Respiratory Organs	F.	13	11	16	15	7	19	14	15	11	12	12	8	11	8	12	7	15	5	2	2	5	6	5	8	4	2	2	3	2	12	12	3	7	3	8	374		
13c	Respiratory Organs	M.	5	2	4	1	—	2	3	—	4	2	3	1	1	1	3	3	6	2	2	2	2	2	1	2	2	1	1	1	—	1	1	1	1	1	1	146		
13d	Female Organs	M.	—	4	6	3	7	3	3	—	4	4	3	6	2	7	5	4	9	3	4	3	5	5	3	4	4	4	—	—	5	3	6	2	5	6	2	4	141	
13e	Breast	F.	5	4	5	5	2	5	7	1	3	8	6	7	8	3	8	4	8	6	3	3	4	4	2	3	2	2	—	—	8	6	9	5	3	4	3	179		
13f	Male Genito Urinary Organs	M.	3	6	3	3	—	2	2	3	3	5	6	2	3	2	3	1	7	5	3	6	4	4	2	4	4	3	2	1	1	5	2	4	1	5	2	1	100	
13g	Skin	M.	1	—	—	—	—	—	—	—	1	—	—	—	1	—	1	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5		
13h	Other Organs	F.	—	—	—	—	—	—	1	—	4	1	1	—	3	—	3	4	3	—	1	1	1	2	1	1	1	1	1	2	1	2	1	2	3	3	—	7		
14	Diabetes	M.	3	1	1	1	1	1	2	—	1	2	1	1	1	2	5	2	—	—	—	—	1	1	2	4	1	3	—	—	1	1	1	1	1	1	1	49		
14	Diabetes	F.	2	2	2	4	2	2	3	1	3	3	7	1	2	4	3	5	1	4	2	1	2	2	1	2	2	2	3	3	6	4	4	1	4	4	1	66		
14a	Rheumatic Fever	M.	1	1	1	1	—	—	—	1	—	—	—	—	1	2	2	—	—	—	—	3	2	—	—	1	1	1	1	1	1	3	1	2	1	1	1	18		
14b	Chronic Rheumatism Osteo-Arthritis	F.	1	4	3	3	1	2	—	2	4	1	1	2	1	2	4	2	2	3	1	1	2	2	1	3	2	2	2	1	1	2	—	—	1	2	30			
15	Cerebral Hamorrhage, etc.	M.	1	4	1	1	1	2	—	2	4	1	1	3	1	2	4	2	4	6	1	1	2	2	1	3	2	2	2	8	10	9	6	9	6	4	2	56		
15	Cerebral Hamorrhage, etc.	F.	7	8	3	3	7	10	4	6	4	6	5	5	4	10	6	6	5	14	7	14	11	14	7	5	7	7	7	8	9	8	9	6	4	6	2	280		
15a	Other Nervous Dis. and Sense Organs	M.	13	11	13	3	8	5	1	6	7	14	8	6	6	2	14	10	6	5	5	4	5	5	6	5	2	2	2	7	6	5	2	3	7	7	3	133		
15a	Other Nervous Dis. and Sense Organs	F.	9	9	4	3	5	2	2	2	2	9	8	6	6	3	4	4	4	8	1	2	4	5	5	7	6	5	5	3	6	5	2	3	5	4	1	181		
16	Heart Disease	M.	30	34	46	46	29	51	37	32	39	28	42	19	35	31	57	31	57	23	13	13	40	47	37	21	48	26	46	39	45	29	40	57	19	27	16	1249		
16	Heart Disease	F.	38	46	78	78	33	63	47	38	52	21	34	28	48	41	60	37	70	26	31	31	48	42	60	56	35	31	39	41	45	64	52	27	46	28	11	1570		
17	Aneurysm	M.	—	—	3	3	—	1	1	1	—	1	1	—	—	1	1	2	2	2	—	—	—	—	1	2	1	—	—	1	1	2	—	—	2	1	2	21	19	
18	Arterio-Sclerosis and other Circulatory Dis.	F.	5	18	20	11	7	11	11	8	11	8	14	5	11	12	22	12	9	8	5	7	24	20	19	11	9	8	11	6	14	14	10	5	10	5	9	390		
18	Arterio-Sclerosis and other Circulatory Dis.	M.	6	14	14	5	7	15	11	8	11	12	11	9	11	9	10	9	7	1	3	8	5	7	15	16	9	8	4	7	7	9	12	8	4	4	302			
19	Bronchitis	F.	1	8	12	6	7	9	3	2	3	1	2	5	8	10	12	6	3	4	1	1	15	16	15	7	5	4	2	3	3	4	2	10	4	4	206			
19	Bronchitis	M.	7	12	16	6	2	6	6	4	3	16	14	10	9	7	20	16	11	13	30	18	35	30	31	8	9	8	9	12	13	12	15	5	9	10	593			
20	Pneumonia (all forms)	F.	19	17	29	17	25	26	17	8	16	16	14	10	7	22	10	7	11	8	12	10	15	16	18	12	10	5	11	7	12	13	12	6	7	10	326			

(Table continued on following page.)

TABLE III—BIRTHS AND DEATHS REGISTERED IN, OR BELONGING TO, EACH WARD DURING THE YEAR ENDING DECEMBER 31st, 1937—continued

No.	CAUSES OF DEATH.	Sex.	Acock's Green.	All Saints.	Aston.	Balsall Heath.	Bromford.	Duddeston and Nechells.	Eagbasdon.	Erington.	Gravelly Hill.	Hall Green.	Handsworth.	Harborne.	King's Norton.	Ladywood.	Lozells.	Market Hall.	Moseley and King's Heath.	Northfield.	Perry Barr.	Rotton Park.	St. Martin's and Deritend.	St. Mary's.	St. Paul's.	Satley.	Sandwell.	Selly Oak.	Small Heath.	Soho.	Sparkbrook.	Sparkhill.	Stechford.	Washwood Heath.	Varley.	Not Located.	TOTAL OF CITY.	
21	Other Respiratory Diseases	M.	2	2	3	2	—	5	2	2	2	3	—	3	2	2	2	1	6	3	4	2	3	3	5	3	3	2	2	2	2	2	2	2	2	2	1	101
22	Peptic Ulcer	F.	3	2	4	4	4	3	6	2	2	2	1	2	4	1	1	1	3	5	2	1	8	4	3	3	3	4	5	5	2	2	2	4	1	1	73	
23	Diarrhoea and Enter- itis	F.	1	1	6	2	—	1	1	1	1	1	1	2	1	2	2	1	3	1	5	2	1	1	1	1	1	2	—	—	—	—	6	3	1	1	18	
24	Appendicitis	F.	2	1	4	2	1	2	1	—	1	2	2	2	1	2	2	—	1	1	1	1	1	1	2	2	2	—	—	—	1	1	2	1	2	1	43	
25	Cirrhosis of Liver ..	F.	1	1	1	1	2	—	—	—	—	—	1	1	1	—	1	2	2	2	—	—	—	—	—	—	—	—	—	—	—	1	1	2	2	1	21	
26	Other Diseases of Liver, etc.	F.	—	1	1	1	—	—	—	—	—	—	1	1	1	—	3	2	2	2	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	16	
27	Other Digestive Diseases	M.	6	3	3	1	2	1	2	1	1	2	1	1	3	—	3	2	6	6	2	1	5	5	3	3	3	3	2	2	2	1	4	2	3	2	40	
28	Acute and Chronic Nephritis	F.	2	2	4	3	2	1	4	5	3	5	6	2	3	2	5	2	5	5	6	2	7	7	3	3	3	3	—	—	—	1	2	1	3	2	84	
28a	Other Genito- Urinary Diseases ..	F.	3	5	4	6	2	6	9	4	2	2	7	4	3	2	6	1	12	4	4	3	3	3	3	2	2	3	4	4	7	7	6	2	4	3	139	
29	Puerperal Sepsis ..	M.	—	—	1	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	52	
30	Other Puerperal Causes	F.	1	1	1	1	2	1	—	3	1	1	2	2	1	1	1	—	—	2	3	1	—	3	—	—	—	—	—	—	—	2	2	1	—	—	39	
31	Congenital Debility, Premature Birth, Malformations, etc.	M.	11	12	10	7	10	12	9	10	14	7	6	8	5	1	13	6	7	13	24	7	14	11	10	12	8	5	11	7	4	11	9	12	6	—	328	
32	Senility	F.	5	10	12	9	3	10	1	8	3	11	4	3	2	2	6	8	4	8	18	5	10	8	10	16	3	3	5	8	3	4	9	7	9	6	5	242
33	Suicide	M.	3	5	2	6	1	4	5	2	2	2	4	6	8	3	3	2	6	2	1	1	1	2	2	2	2	2	2	2	2	7	7	2	5	3	83	
34	Other Violence	F.	1	1	2	4	2	3	3	4	1	1	1	2	1	4	3	3	4	4	3	5	2	4	7	2	1	1	1	1	1	4	7	3	2	135		
35	Other Causes	F.	7	6	5	6	6	10	3	4	6	8	5	4	3	3	6	5	8	10	16	3	5	7	9	6	7	8	13	6	5	5	4	6	1	99		
		M.	3	3	3	6	2	1	2	4	4	8	5	4	3	3	4	5	8	10	16	3	5	7	9	6	7	8	11	6	5	5	4	6	2	62		
		F.	3	3	3	6	2	1	2	4	4	8	5	4	3	3	4	5	8	10	16	3	5	7	9	6	7	8	10	6	4	4	6	6	1	244		
		M.	3	3	3	6	2	1	2	4	4	8	5	4	3	3	4	5	8	10	16	3	5	7	9	6	7	8	13	6	5	5	4	6	1	164		
		F.	3	3	3	6	2	1	2	4	4	8	5	4	3	3	4	5	8	10	16	3	5	7	9	6	7	8	10	6	4	4	6	6	2	158		
		M.	3	3	3	6	2	1	2	4	4	8	5	4	3	3	4	5	8	10	16	3	5	7	9	6	7	8	10	6	4	4	6	6	2	189		
	Deaths under 1 year ..		27	31	45	28	21	42	13	29	29	29	17	22	13	26	31	14	20	35	74	28	39	42	46	60	38	24	26	21	17	38	24	45	20	20	6	1016
	Births		493	460	533	480	452	697	252	396	407	661	345	411	488	454	422	311	504	802	1280	456	552	617	537	514	491	442	469	380	282	491	442	613	393	410	341	16978

TABLE IV.—DEATH-RATES FROM ALL CAUSES IN WARDS.

OLD WARDS.	CENTRAL WARDS.										OUTER RING.																								
	St. Paul's.	St. Mary's.	Duddeston and Nechells.	St. Bartholomew's.	St. Martin's.	Market Hall.	Ladywood.	Central Wards.	Lozells.	Aston.	Washwood Heath.	Salley.	Small Heath.	Sparkbrook.	Balsall Heath.	Edgbaston.	Rotton Park.	All Saints'.	Middle Ring.	Soho.	Sandwell.	Handsworth.	Perry Barr.	Ednington North.	Ednington South.	Yardley.	Acock's Green.	Sparkhill.	Moseley and King's Heath.	Selly Oak.	King's Norton.	Northfield.	Harborne.	Outer Ring.	
1916	18.7	22.4	19.7	17.0	21.2	16.5	14.9	18.6	12.4	13.7	11.8	12.2	11.5	12.4	12.5	12.1	13.7	13.3	12.6	12.2	9.9	9.8	?	12.7	7.9	10.8	11.0	9.7	9.8	10.5	9.1	10.6	9.9	10.3	
1917	18.2	19.7	17.2	16.8	17.2	15.0	14.4	16.9	12.9	12.6	10.2	11.0	11.3	11.8	12.2	11.5	12.7	12.7	11.9	10.6	9.5	10.3	?	9.1	8.8	9.3	10.9	9.1	10.6	8.6	8.0	7.5	10.1	9.4	
1918	20.0	22.7	19.7	20.8	20.3	20.9	19.4	20.5	15.5	16.3	12.0	13.4	14.8	14.5	15.6	13.7	15.8	15.7	14.7	13.3	11.1	11.7	?	9.8	11.7	10.8	12.3	11.9	11.2	11.8	9.3	11.5	12.5	11.5	
1919	16.8	17.9	15.8	16.5	18.6	14.0	16.1	16.5	13.1	13.4	11.8	10.7	11.1	13.1	13.3	12.8	13.2	12.5	12.5	11.1	10.6	11.4	?	11.1	10.7	10.3	9.5	10.0	11.6	11.1	9.3	8.0	11.3	10.5	
1920	16.9	20.4	16.3	16.6	17.6	12.8	17.5	16.9	11.8	11.9	11.4	11.1	11.0	12.0	12.8	11.1	13.7	12.7	12.0	11.6	9.4	9.5	?	9.5	9.3	10.4	10.4	10.0	10.0	9.0	8.2	10.2	9.8		
Average	18.1	20.6	17.7	17.5	19.0	15.8	16.5	17.9	13.1	13.6	11.4	11.7	11.9	12.8	13.3	12.2	13.8	13.4	12.7	11.8	10.1	10.5	?	10.4	9.7	10.3	10.3	10.1	10.6	10.4	8.9	9.2	10.8	10.3	
1921	14.7	17.4	13.7	14.2	13.6	14.6	12.6	14.4	11.7	12.1	10.9	9.2	10.5	10.2	11.4	10.7	11.2	11.3	10.9	10.1	11.3	10.1	?	9.3	10.2	8.0	8.3	9.1	10.5	7.6	7.8	8.7	8.2	9.2	
1922	15.1	15.5	13.2	15.9	16.7	15.1	14.8	15.2	12.3	12.6	10.4	10.1	10.9	12.2	12.8	11.8	11.8	11.7	12.2	9.1	9.6	?	10.7	10.1	9.2	9.6	10.6	12.3	10.4	7.8	9.5	10.1	10.1		
1923	13.7	17.1	13.7	13.5	14.0	12.1	12.5	13.8	11.8	11.6	10.1	8.4	9.7	10.4	10.9	10.6	10.7	11.4	10.6	10.3	8.9	9.8	?	8.9	8.1	8.3	8.7	9.4	11.0	8.8	8.1	7.9	9.8	9.1	
1924	14.1	15.5	13.4	14.9	15.4	14.9	13.1	14.5	12.3	12.2	8.9	10.1	10.8	10.8	13.0	10.8	11.4	11.8	11.2	11.8	8.9	9.8	?	10.6	8.9	9.5	10.0	10.0	10.1	9.0	10.0	8.9	10.4	9.8	
1925	14.9	17.7	13.2	14.5	15.4	13.4	12.6	14.5	12.8	14.1	9.7	9.2	9.7	11.8	11.9	11.3	12.5	12.8	11.6	12.0	8.1	9.3	?	9.3	8.1	9.6	8.8	9.8	10.4	8.6	8.3	9.3	9.5	9.3	
Average	14.5	16.6	13.4	14.6	15.0	14.0	13.1	14.5	12.2	12.5	10.0	9.4	10.3	11.1	12.0	11.0	11.5	11.8	11.2	11.3	9.3	9.7	?	9.8	9.1	8.9	9.1	9.8	10.9	8.9	8.4	8.9	9.6	9.5	
1926	14.6	16.9	12.8	14.0	14.6	13.2	12.3	14.1	12.7	12.3	9.3	7.3	9.0	10.9	12.0	11.9	11.3	12.1	10.9	10.9	9.8	9.6	?	8.1	9.3	7.3	8.6	9.2	9.8	8.2	8.6	10.0	10.3	9.2	
1927	16.2	16.6	13.1	13.4	14.8	12.5	13.2	14.3	11.5	12.1	9.7	8.8	8.6	11.2	13.2	11.2	12.4	12.5	11.1	11.7	9.7	10.6	?	9.4	7.9	8.8	8.8	10.0	10.6	9.7	8.9	9.2	10.7	9.7	
1928	14.7	17.5	12.3	12.9	14.1	13.3	12.9	14.0	12.5	11.6	9.7	9.3	9.9	11.7	12.2	9.7	10.7	10.5	10.8	10.7	9.3	9.8	?	8.2	9.2	7.8	8.3	7.9	9.5	9.1	9.7	10.2	8.7	8.7	
1929	17.3	18.1	16.8	16.0	18.7	16.7	15.3	17.0	15.7	15.4	12.1	10.3	10.5	14.0	15.1	13.9	15.1	14.4	13.6	14.8	11.8	13.0	?	6.8	10.0	10.2	9.7	9.5	10.6	11.8	10.8	9.8	10.3	11.8	10.8
1930	12.9	14.9	12.2	12.5	14.4	10.4	12.5	13.3	11.8	12.2	9.0	7.8	9.0	12.6	12.7	11.1	10.9	10.8	11.2	10.9	10.7	10.7	5.0	7.6	9.1	8.8	8.0	8.9	10.6	8.3	8.2	7.8	10.2	8.9	
Average	15.1	16.8	13.4	13.8	15.3	13.9	13.2	14.5	12.8	12.7	10.0	8.7	9.4	11.8	13.0	12.1	11.1	11.9	11.2	10.9	10.3	10.7	?	8.7	9.1	8.5	8.6	9.3	10.5	9.2	9.0	9.5	10.3	9.5	
1931	14.8	16.2	13.9	13.5	14.9	15.1	13.1	14.5	12.9	13.9	11.5	9.2	11.4	12.9	12.4	12.1	13.9	12.7	12.3	14.0	9.2	11.1	7.2	8.6	9.7	7.9	9.1	9.4	9.2	11.1	10.0	7.2	9.2	9.5	
1932	13.2	15.8	14.2	13.7	13.7	12.6	12.1	13.6	13.1	13.4	10.5	8.7	11.4	12.1	13.2	11.7	11.5	11.4	11.7	13.0	11.1	11.1	6.7	8.7	9.2	9.0	8.5	10.1	10.7	10.8	10.1	7.2	10.4	9.8	
1933	12.7	13.7	12.7	12.6	14.2	14.0	13.1	13.3	13.2	12.3	9.6	9.1	12.0	12.8	11.7	11.0	10.0	12.1	11.4	13.0	10.8	12.9	5.9	8.4	12.1	9.3	8.8	9.1	10.3	9.2	10.0	8.3	8.4	9.7	
1934	12.1	14.0	12.5	12.2	14.2	13.1	12.0	12.9	13.4	12.3	9.5	8.9	10.8	13.9	14.2	11.6	12.7	12.5	12.0	11.5	11.6	12.4	5.9	8.4	8.0	8.5	8.7	9.4	10.3	10.7	10.8	8.4	9.7	9.6	
Average	13.2	14.9	13.3	13.0	14.2	13.7	12.6	13.6	13.1	13.0	10.3	9.0	11.4	12.9	12.9	11.6	12.0	12.2	11.8	12.9	10.7	11.9	6.4	8.5	9.7	8.7	8.3	9.5	10.1	10.4	10.2	7.8	9.4	9.6	
1935	..	..	..	..	..	..	..	12.9	..	..	..	..	..	..	..	..	..	..	11.6	..	..	..	..	..	..	..	..	..	..	..	..	..	9.5	..
1936	..	..	..	..	..	..	..	13.5	..	..	..	..	..	..	..	..	..	..	12.2	..	..	..	..	..	..	..	..	..	..	..	..	..	9.8	..
1937	..	..	..	..	..	..	..	14.3	..	..	..	..	..	..	..	..	..	..	13.0	..	..	..	..	..	..	..	..	..	..	..	..	..	9.8	..

NOTE.—Figures for individual Wards for 1935, 1936 and 1937 cannot be compared with those for preceding years owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

TABLE V—DEATHS UNDER 1 PER 1,000 BIRTHS IN WARDS

OLD WARDS.	St. Paul's.	St. Mary's.	Duddeston and Nethells.	St. Martin's.	Market Hall.	Ladywood.	Central Wards.	Lozells.	Aston.	Washwood Heath.	Salley.	Small Heath.	Sparkbrook.	Balsall Heath.	Dagboston.	Rotton Park.	All Saints'.	Middle Ring.	Soho.	Sandwell.	Handsworth.	Perry Barr.	Edlington North.	Edlington South.	Yardley.	Acocks Green.	Sparkhill.	Mosley and King's Heath.	Selly Oak.	King's Norton.	Norfield.	Harborne.	Outer Ring.
1916	160	159	164	139	150	139	147	82	114	93	79	69	70	62	98	96	96	86	94	68	91	?	80	39	83	79	55	76	83	61	59	69	72
1917	115	168	136	132	112	89	112	93	105	96	97	94	110	83	73	93	122	97	74	37	71	?	74	80	95	75	90	41	66	77	50	44	67
1918	156	148	104	137	120	152	104	111	113	70	100	69	99	86	80	101	88	92	83	64	72	?	57	57	67	82	66	66	58	60	70	89	69
1919	109	103	105	102	95	120	100	105	93	90	64	67	80	64	61	97	88	76	97	71	63	?	39	79	83	47	36	44	76	69	43	79	64
1920	112	121	93	111	102	85	105	104	78	83	72	80	80	98	64	79	78	79	55	75	51	?	61	47	54	64	73	53	64	43	28	50	55
Average	130	140	120	124	116	117	108	122	89	101	86	76	84	79	65	93	94	86	81	63	70	?	62	60	76	69	64	56	69	62	50	66	65
1921	106	116	104	113	85	117	96	105	87	91	75	57	60	62	75	104	104	77	57	72	69	?	44	68	43	62	67	69	47	60	97	42	61
1922	105	117	102	115	107	113	102	109	84	69	82	68	92	81	75	101	90	80	66	68	51	?	54	89	55	79	56	81	69	41	58	58	62
1923	104	103	99	81	93	80	79	91	60	85	68	59	62	59	54	51	67	64	54	57	45	?	48	58	73	49	34	49	53	76	21	46	51
1924	87	123	103	119	110	81	86	101	68	67	62	85	64	83	67	85	80	77	63	67	49	?	70	52	62	50	58	69	74	59	54	57	60
1925	120	100	101	106	107	119	73	104	87	104	69	65	38	77	64	70	53	92	66	39	64	?	54	32	45	53	55	39	51	66	39	42	50
Average	104	112	102	107	100	102	87	102	88	72	75	66	70	69	68	77	89	74	61	61	56	?	54	56	56	59	54	61	59	60	54	49	57
1926	106	122	79	98	86	106	81	97	52	77	66	43	48	70	52	59	63	65	76	98	53	?	46	52	56	48	70	54	69	65	68	90	65
1927	115	115	104	81	89	85	78	95	78	80	73	64	34	73	87	66	89	82	73	81	44	47	?	59	49	66	36	71	42	61	45	78	56
1928	71	101	73	89	84	100	69	84	63	57	62	71	59	56	46	75	46	60	74	68	34	0	62	40	43	49	47	41	82	44	46	65	50
1929	120	111	125	98	108	73	108	106	80	86	69	50	45	51	84	82	72	71	92	46	43	0	56	49	65	68	74	38	76	54	60	58	56
1930	89	75	67	74	91	88	74	80	53	61	37	54	42	55	69	77	63	67	65	38	47	63	54	51	55	41	51	49	49	36	38	53	49
Average	100	105	90	88	92	90	82	92	66	66	60	47	60	64	66	74	66	64	78	59	45	?	55	48	57	48	63	45	67	51	51	69	55
1931	85	107	87	96	103	105	96	86	87	76	59	48	61	70	83	100	80	75	83	33	60	57	55	59	55	63	45	49	66	60	44	37	55
1932	92	105	98	77	87	76	69	86	52	97	48	61	73	87	63	62	74	66	95	37	63	72	56	56	58	59	53	45	47	76	43	43	57
1933	82	73	72	100	85	79	75	81	56	59	54	99	65	44	72	69	74	66	60	75	49	67	58	45	66	64	60	65	37	38	76	68	59
1934	66	85	87	101	81	106	84	87	77	70	56	42	112	68	72	60	83	69	68	55	63	48	87	52	34	62	64	66	44	49	67	50	58
Average	81	92	86	91	88	91	83	87	78	62	54	67	81	57	72	73	78	69	76	50	59	61	64	53	53	62	55	56	48	56	57	49	57
1935	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	58
1936	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	52
1937	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	53

NOTE.—Figures for individual Wards for 1935, 1936 and 1937 cannot be compared with those for preceding years owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

TABLE VI.—BIRTH-RATES IN WARDS

OLD WARDS.	St. Paul's.	St. Mary's.	Dudleston and Nechells.	St. Bartholomew's.	St. Martin's.	Market Hall.	Ladywood.	Central Wards.	Lozells.	Aston.	Washwood Heath.	Salley.	Small Heath.	Sparbrook.	Balsall Heath.	Edgbaston.	Rollon Park.	All Saints.	Middle Ring.	Soho.	Sandwell.	Handsworth.	Perry Barr.	Ervington North.	Ervington South.	Yardley.	Acocks Green.	Sparkhill.	Moseley and King's Heath.	Selly Oak.	King's Norton.	Northfield.	Harborne.	Outer Ring.
1916	28.9	29.3	30.9	28.8	28.0	28.8	23.8	26.0	21.8	23.0	19.5	15.3	23.8	26.6	22.9	19.3	19.3	18.0	?	19.4	19.8	19.4	22.7	17.6	15.7	24.0	21.3	19.1	19.0	19.6	19.6	19.6	19.6	
1917	26.7	24.3	27.5	28.5	24.5	18.8	23.2	24.6	19.4	23.1	20.4	20.2	19.9	19.2	18.1	13.4	20.7	22.1	19.7	13.2	16.5	15.0	?	14.9	17.4	19.9	19.7	12.8	13.4	19.2	14.5	16.2	16.4	16.1
1918	24.7	24.1	29.2	27.3	24.3	21.6	23.9	25.0	19.2	21.0	20.1	20.1	18.6	18.0	18.2	13.0	22.4	20.1	17.7	12.5	14.4	?	16.2	15.9	18.8	18.7	13.0	13.5	18.1	16.3	20.9	14.0	15.9	
1919	29.1	28.6	29.5	29.0	29.1	21.5	26.6	27.6	18.5	24.4	21.2	19.3	17.7	19.8	18.5	15.0	22.0	23.3	20.0	17.3	14.7	16.0	?	17.2	19.2	18.1	18.2	14.5	14.8	21.1	15.0	17.2	15.3	16.8
1920	37.6	37.2	39.6	35.9	34.9	30.2	33.5	35.6	25.2	32.0	27.9	28.6	23.4	25.9	25.1	18.8	30.2	31.3	26.8	23.8	21.7	21.4	?	24.7	22.8	26.4	24.4	19.3	19.9	26.7	21.3	22.9	19.6	22.7
Average	29.4	28.5	31.3	29.9	28.2	22.4	26.6	28.0	20.6	25.9	22.7	22.8	20.3	21.2	19.9	15.3	23.5	25.1	21.7	17.7	16.9	17.0	?	18.5	19.0	20.5	20.7	15.4	15.5	21.8	17.7	19.3	16.9	18.2
1921	31.8	35.7	32.9	32.3	30.8	28.0	30.8	31.8	21.8	28.7	23.8	23.9	20.5	23.8	22.5	15.2	24.8	25.0	23.0	20.1	16.4	17.7	?	21.1	20.0	20.5	21.0	19.3	14.8	20.8	18.0	19.6	20.2	19.2
1922	29.7	30.8	27.5	28.5	28.6	20.8	25.4	27.3	18.3	25.4	21.9	20.6	18.3	20.2	21.5	14.1	22.6	23.6	20.7	18.7	15.0	15.4	?	20.7	15.7	18.9	18.0	17.4	14.3	17.6	17.6	17.5	15.5	17.1
1923	28.2	30.3	27.5	29.0	27.0	20.7	25.8	26.9	18.4	23.1	22.1	21.6	15.5	18.5	18.6	13.5	21.7	21.9	19.5	16.0	14.1	14.2	?	18.1	16.8	17.4	17.0	17.1	13.2	17.7	17.1	20.8	13.0	16.3
1924	28.0	28.1	27.0	26.8	24.1	20.7	21.9	25.2	17.4	23.1	20.6	18.4	14.1	16.9	18.4	13.3	19.3	20.6	18.2	15.1	12.7	12.8	?	17.1	17.7	15.0	16.7	16.2	12.8	15.7	14.5	19.8	14.5	15.4
1925	23.5	28.3	25.3	25.1	24.6	19.5	22.2	24.1	16.7	22.5	19.7	19.7	14.6	16.4	17.0	12.0	19.9	20.1	17.9	16.3	12.4	12.6	?	20.3	14.9	16.3	16.7	17.1	11.5	16.0	14.2	17.7	11.0	15.2
Average	28.2	30.6	28.0	28.3	27.0	21.9	25.2	27.1	18.5	24.6	21.6	20.8	16.6	19.2	19.6	13.6	21.7	22.2	19.9	17.2	14.1	14.5	?	19.5	17.0	17.6	17.9	17.4	13.3	17.6	16.3	19.1	14.8	16.6
1926	25.4	27.8	24.8	24.8	23.8	18.9	22.9	24.1	17.6	20.4	18.8	19.8	15.3	15.4	17.0	10.2	18.0	19.4	17.4	14.2	12.6	11.0	?	20.8	14.8	16.5	14.3	17.1	12.5	14.1	14.1	16.5	11.5	14.6
1927	25.4	25.8	23.1	23.3	22.0	19.2	20.4	22.7	16.4	19.9	17.7	17.7	15.2	15.3	16.0	11.6	16.5	17.6	16.4	14.1	12.2	11.7	?	20.3	14.8	18.9	14.3	16.2	15.4	13.6	13.6	18.3	11.2	15.0
1928	24.0	27.3	22.4	21.5	22.2	18.4	18.9	22.1	16.1	19.8	17.5	17.7	15.2	15.3	16.5	11.4	17.1	18.2	16.5	13.1	11.5	10.2	8.4	18.5	15.2	19.9	18.8	17.7	12.6	13.2	13.3	15.3	12.5	14.3
1929	23.8	25.6	20.4	21.5	22.3	19.1	19.8	21.8	15.3	17.8	16.4	17.4	14.9	14.4	14.2	11.0	15.8	17.0	15.4	11.5	10.9	12.0	16.8	18.6	16.8	18.1	20.0	16.0	12.8	13.0	13.4	16.0	12.6	14.9
1930	22.5	25.3	21.6	20.9	21.8	17.6	19.5	21.3	16.4	18.8	15.6	14.4	15.6	15.4	15.2	12.3	18.4	18.4	16.0	11.8	10.5	11.7	27.7	19.9	18.1	17.5	21.1	16.7	13.1	13.1	12.6	21.3	12.5	16.2
Average	24.2	26.4	22.5	22.4	18.6	19.3	22.4	16.4	19.3	17.2	17.4	15.2	15.2	15.2	15.8	11.7	18.1	16.3	12.9	11.5	11.3	?	19.4	15.9	18.2	17.7	16.7	13.3	13.4	13.4	17.5	12.1	15.0	
1931	21.4	22.2	20.5	21.2	19.9	17.6	17.7	20.1	15.7	19.4	15.9	14.3	14.7	15.2	14.4	9.7	14.3	16.4	15.0	10.7	10.1	12.6	34.8	17.4	15.9	15.2	18.7	15.7	13.4	13.6	12.2	22.9	12.4	16.1
1932	21.5	20.6	21.5	20.2	18.6	15.5	19.4	19.6	13.6	17.8	14.6	14.5	13.7	13.0	10.7	16.0	16.6	14.8	10.7	11.7	10.4	27.5	13.6	13.6	15.5	17.8	15.3	13.4	13.2	11.9	21.1	12.4	14.9	
1933	18.9	19.3	18.1	18.7	18.4	17.7	16.2	18.2	13.1	15.0	13.1	12.7	12.4	14.7	13.4	8.6	13.9	13.8	13.1	10.5	10.2	10.4	22.2	13.8	13.5	14.2	14.9	13.2	10.8	12.8	11.3	20.1	10.4	13.4
1934	18.5	20.2	19.8	17.5	19.2	15.7	16.8	18.2	14.7	16.5	14.1	12.2	12.6	15.2	13.5	9.0	14.2	14.0	13.6	10.0	11.4	11.0	23.8	13.2	15.1	16.0	11.1	13.8	11.8	12.6	11.4	20.9	11.2	14.1
Average	20.1	20.6	20.0	19.4	19.0	16.6	17.5	19.0	14.9	17.2	14.4	13.4	13.3	14.9	13.6	9.5	14.6	15.2	14.1	10.5	10.8	11.1	27.1	14.5	14.5	15.2	16.6	14.5	12.3	13.0	11.7	21.2	11.6	14.6
1935	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13.6	..	..	..	..	..	..	..	..	..	..	..	..	..	14.3	
1936	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14.2	..	..	..	..	..	..	..	..	..	..	..	..	..	14.8	
1937	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	14.5	..	..	..	..	..	..	..	..	..	..	..	..	..	15.8	

NOTE.—Figures for individual Wards for 1935, 1936 and 1937 cannot be compared with those for preceding years owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

TABLE VII—CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1937, CLASSIFIED ACCORDING TO SEX AND AGE

	Sex.	AGES.											Totals.		
		0-	1-	2-	5-	10-	15-	20-	25-	35-	45-	55-		65-	75 up.
Enteric Fever	M.	—	—	1	2	1	1	2	2	—	—	—	—	—	9
	F.	—	—	—	2	1	1	—	1	—	—	—	—	1	8
Scarlet Fever	M.	8	46	273	543	219	89	48	33	18	4	—	—	—	1281
	F.	7	32	267	582	263	80	44	58	25	—	4	—	1	1363
Diphtheria	M.	12	24	143	294	91	16	12	10	1	—	1	—	—	604
	F.	13	25	135	289	116	74	32	41	25	4	—	1	—	755
Erysipelas.....	M.	3	3	3	6	5	5	9	29	28	59	49	31	5	235
	F.	6	5	7	5	12	14	19	44	48	58	62	46	13	339
Pulmonary Tuberculosis	M.	1	2	10	12	9	54	68	114	94	121	80	21	5	591
	F.	3	6	10	10	10	75	67	79	54	28	22	10	—	374
Tubercular Meningitis	M.	1	1	2	—	—	2	1	—	—	—	—	—	—	6
	F.	1	1	2	2	1	1	1	—	—	—	—	—	—	9
Tuberculosis of Peritoneum and Intes- tines	M.	—	—	—	—	—	3	1	2	—	1	—	—	—	5
	F.	—	—	—	—	—	2	1	3	—	—	—	—	—	66
Other Forms of Tuberculosis	M.	2	1	12	3	5	15	5	3	8	5	2	5	—	59
	F.	—	1	7	8	5	6	6	15	4	4	1	1	—	6
Encephalitis Lethargica	M.	—	—	—	—	—	2	—	2	3	1	4	1	—	13
	F.	—	—	—	—	—	—	—	3	—	1	—	—	—	17
Cerebro-Spinal Fever	M.	4	3	1	4	1	—	2	3	—	1	—	—	—	10
	F.	2	—	1	2	1	1	1	2	—	—	—	—	—	10
Dysentery.....	M.	1	1	2	4	5	2	2	6	2	—	1	—	—	26
	F.	—	—	2	4	12	2	4	4	2	—	2	2	—	35
Pneumonia	M.	93	109	133	145	34	76	61	175	188	191	177	85	25	1492
	F.	83	88	156	87	32	47	45	89	95	93	101	71	46	1033
Puerperal Fever	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	1	20	44	17	1	—	—	—	83
Puerperal Pyrexia	M.	—	—	—	—	—	—	62	124	36	1	—	—	—	232
	F.	—	—	—	—	—	9	—	—	—	—	—	—	—	962
Ophthalmia Neonatorum	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	962	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTALS		1202	348	1169	2005	824	578	513	881	649	575	508	274	96	9622

Small-pox, 0 ; Poliomyelitis, 1 male ; Polio-Encephalitis, 0 ; Malaria, 3 males.

Small-pox, 0; Poliomyelitis, 1 male; Polio-Encephalitis, 0; Malaria, 3 males.

DISEASE.	Acoc's Green.	All Saints.	Aston.	Balsall Heath.	Bromford.	Duddeston and Nechells.	Edbaston.	Erdington.	Gravelly Hill.	Hall Green.	Handsworth.	Harborne.	King's Norton.	Ladywood.	Lozells.	Market Hall.	Moseley and Kin Heath.	Northfield.	Perry Barr.	Rotton Park.	St. Bartholomew's.	St. Martin's.	St. Mary's.	St. Paul's.	Salley.	Sandwell.	Selly Oak.	Small Heath.	Soho.	Sparbrook.	Sparhill.	Stechford.	Washwood Heath.	Yardley.	Not Located.	CITY.
Enteric Fever	1	—	1	1	—	—	2	—	—	1	1	—	1	—	—	—	—	1	—	1	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	17
Continued Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlet Fever.....	186	64	64	62	58	83	60	77	64	150	33	51	46	69	61	34	74	129	301	53	56	53	73	81	68	27	65	72	32	62	51	100	73	91	21	2644
Diphtheria	20	31	57	30	31	51	23	34	35	19	19	17	16	91	53	35	27	75	102	40	33	55	84	112	27	6	15	26	16	32	9	29	19	52	38	1359
Dysentery	2	1	2	2	1	2	3	—	1	2	—	1	7	1	1	4	—	4	4	2	3	4	1	—	—	—	1	—	—	—	2	3	1	2	4	61
Erysipelas	18	25	18	22	8	48	14	15	14	16	10	10	7	18	7	7	8	14	32	12	14	20	19	27	20	6	10	20	11	23	13	20	24	13	11	574
Pulmonary Tuberculosis.	28	36	46	23	24	44	17	23	22	36	16	19	14	18	35	25	24	22	32	31	32	48	39	41	26	16	22	23	25	36	26	22	30	29	15	965
Tubercular Meningitis ..	—	—	—	1	—	1	—	—	—	—	—	—	—	—	1	—	2	2	—	—	1	—	2	—	—	—	—	—	—	1	1	—	—	2	—	15
Tuberculosis of Peritoneum and Intestines	—	1	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	2	—	1	—	1	—	—	2	1	1	1	1	—	—	1	—	14
Tuberculosis of Spinal Column	3	1	1	—	1	1	—	1	1	1	—	—	1	1	1	1	—	2	—	2	—	—	1	1	1	—	1	1	1	—	—	—	3	—	27	
Tuberculosis of Joints...	2	1	2	—	2	3	—	1	—	1	—	1	1	—	1	1	1	3	1	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	29
Tuberculosis of Other Organs	1	2	1	2	2	2	—	3	2	2	2	2	—	—	2	2	—	3	6	2	2	7	2	3	1	1	2	1	2	—	2	1	2	1	—	63
Disseminated Tuberculosis	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	6
Encephalitis Lethargica.	—	—	1	—	—	1	1	1	1	—	—	—	1	—	—	2	1	2	1	1	—	—	1	—	—	—	1	—	—	—	—	—	2	1	1	19
Cerebro-Spinal Fever....	—	1	—	—	—	1	1	1	1	1	1	—	—	—	—	2	1	—	2	3	—	1	1	4	—	—	1	—	—	—	2	2	1	—	—	27
Polionymyelitis	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Polio-encephalitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	85	70	123	83	121	190	46	50	98	56	37	32	37	91	60	53	62	61	178	95	72	119	63	75	31	50	57	33	49	66	91	54	56	9	2525	
Puerperal Fever	5	1	1	—	1	2	—	2	1	5	1	3	1	3	—	1	2	6	13	—	1	1	3	1	2	—	1	1	—	3	8	5	1	2	6	83
Puerperal Pyrexia	7	3	1	6	3	11	2	3	3	12	4	5	2	9	5	4	8	6	16	3	8	9	1	5	7	2	9	2	5	9	8	6	5	9	34	232
Ophthalmia Neonatorum	19	18	43	24	21	64	3	24	19	26	14	7	11	36	34	24	12	16	70	30	58	62	43	57	33	9	10	25	19	17	19	40	23	17	15	962
TOTALS.....	377	256	361	257	274	507	171	234	262	329	138	148	145	338	261	195	221	346	759	277	281	334	388	400	265	98	191	231	145	233	215	320	234	281	154	9625

TABLE IX.—PULMONARY TUBERCULOSIS. CASE-RATES IN WARDS

OLD WARDS.	St. Paul's.	St. Mary's.	Didadston and Neckells.	St. Bartholomew's.	St. Martin's.	Market Hall.	Ladywood.	Central Wards.	Lozells.	Aston.	Washwood Heath.	Salley.	Small Heath.	Sparbrook.	Balsall Heath.	Edgbaston.	Rotton Park.	All Saints.	Middle Ring.	Soho.	Sandwell.	Handsworth.	Perry Barr.	Edrington North.	Edrington South.	Vardley.	Acoc's Green.	Sparkhill.	Mosley and King's Heath.	Selly Oak.	King's Norton.	Northfield.	Harborne.	Outer Ring.
1916	5.11	6.75	6.64	6.66	5.66	4.33	4.30	5.64	3.87	3.53	3.99	4.19	4.44	3.67	3.15	2.81	4.05	3.94	3.76	2.86	2.35	2.78	?	1.66	2.17	2.50	2.65	2.53	1.64	2.27	2.14	1.87	1.19	2.20
1917	5.26	5.67	4.52	4.36	6.13	4.12	5.20	3.47	3.03	3.42	2.29	3.34	2.85	3.12	2.16	3.62	3.77	3.11	2.17	2.61	2.59	?	2.25	2.21	2.31	3.58	2.81	1.33	2.79	1.97	1.82	1.85	2.33	
1918	5.46	4.42	4.34	5.33	5.92	5.66	6.80	5.33	3.13	3.09	2.72	2.08	3.40	3.56	2.97	2.81	4.04	3.35	3.12	1.38	1.98	3.48	?	2.24	2.46	2.15	2.66	2.49	2.12	2.53	1.35	3.33	1.80	2.31
1919	4.30	4.94	4.13	4.00	4.45	3.99	4.14	4.28	3.30	3.22	2.05	1.99	2.30	2.62	2.79	2.22	4.02	2.89	2.74	2.55	1.35	2.89	?	2.14	2.36	1.90	2.70	2.23	1.22	2.34	1.66	1.90	1.81	2.08
1920	3.63	4.91	4.09	4.23	4.13	2.62	4.12	3.96	2.56	2.95	2.39	2.48	2.11	2.61	2.75	1.50	4.16	3.20	2.67	2.81	1.48	2.84	?	2.41	2.19	2.18	2.13	2.03	1.83	2.43	1.65	2.04	1.78	2.14
Average	4.75	5.34	4.74	5.31	4.78	4.45	4.70	4.88	3.27	3.16	2.91	2.61	3.12	3.06	2.96	3.20	3.98	3.43	3.08	2.35	1.95	2.92	?	2.14	2.28	2.21	2.74	2.42	1.63	2.47	1.75	2.19	1.69	2.21
1921	3.13	3.49	3.41	2.51	3.01	2.80	2.55	2.99	2.20	2.65	2.11	1.76	1.88	2.22	2.00	1.28	2.33	2.26	2.04	1.54	1.08	2.09	?	1.44	1.46	1.81	1.47	2.05	1.62	1.41	0.77	0.83	1.39	1.46
1922	2.23	3.20	2.80	2.47	3.42	2.40	2.21	2.68	1.59	1.74	1.81	1.17	1.44	1.41	2.17	1.21	1.63	1.81	1.60	1.15	0.62	1.17	?	1.71	1.40	1.45	1.20	1.88	0.84	1.74	0.67	1.81	1.44	1.31
1923	2.13	3.14	3.20	2.51	3.88	2.46	1.97	2.76	1.90	1.95	1.79	1.41	1.69	1.88	2.22	1.40	2.28	1.60	1.81	1.40	0.61	1.31	?	1.52	1.39	1.39	1.35	1.57	1.31	1.04	1.09	1.22	1.08	1.25
1924	2.16	3.02	2.69	2.40	4.39	2.11	2.10	2.70	1.65	2.43	1.88	1.62	1.54	1.32	2.09	1.01	2.20	1.62	1.74	1.38	0.76	1.31	?	0.92	1.52	1.27	1.34	1.25	1.11	0.93	1.34	1.28	1.53	1.23
1925	1.54	2.37	2.22	2.44	3.41	1.90	1.85	2.25	1.59	2.05	1.37	1.34	1.44	1.09	1.58	1.09	1.62	1.10	1.43	1.19	0.97	1.47	?	1.49	0.92	0.99	1.06	1.34	0.75	1.14	1.01	1.47	0.81	1.12
Average	2.24	3.04	2.86	2.47	3.62	2.33	2.14	2.68	1.79	2.16	1.79	1.46	1.54	1.58	2.01	1.20	2.01	1.68	1.72	1.33	0.81	1.47	?	1.42	1.34	1.38	1.28	1.62	1.13	1.25	0.98	1.32	1.25	1.27
1926	2.28	2.50	2.21	1.89	2.52	1.46	1.62	2.07	1.62	1.98	1.86	1.30	0.83	1.22	1.85	0.97	1.33	1.13	1.41	0.64	0.96	1.27	?	0.95	1.03	0.78	0.88	1.02	0.67	1.21	0.83	2.06	1.32	1.05
1927	2.01	2.87	2.14	1.97	2.24	1.90	1.90	2.15	1.36	1.69	1.05	1.45	0.95	1.14	1.53	1.02	1.52	1.35	1.30	1.43	0.87	0.61	?	0.63	0.72	0.87	0.53	0.91	0.87	1.33	1.16	1.30	0.70	0.92
1928	1.90	2.52	2.28	1.80	2.52	1.55	1.89	2.07	1.48	1.82	1.06	0.98	1.12	1.29	1.10	0.92	1.34	1.56	1.27	1.23	1.08	1.25	0.00	0.92	1.17	1.25	0.73	0.93	0.71	1.32	1.00	1.33	0.81	0.98
1929	2.08	1.90	2.45	1.50	1.98	2.07	1.46	1.92	1.27	1.92	0.95	0.97	0.92	1.17	1.27	0.75	1.54	1.55	1.23	1.09	0.90	0.97	2.50	1.09	0.83	1.47	1.00	0.78	0.60	0.70	0.56	1.30	0.96	1.05
1930	2.05	1.66	1.74	1.41	1.76	1.55	2.06	1.75	1.72	1.89	1.16	0.93	1.15	0.87	1.53	0.65	1.30	1.39	1.26	0.92	1.03	1.01	0.49	1.24	1.10	1.19	1.17	0.80	0.58	1.01	0.58	0.91	0.46	0.89
Average	2.06	2.29	2.16	1.71	2.20	1.71	1.79	1.99	1.49	1.86	1.22	1.13	0.99	1.14	1.46	0.86	1.41	1.40	1.29	1.06	0.97	1.02	?	0.97	0.97	1.11	0.86	0.89	0.69	1.11	0.83	1.38	0.85	0.98
1931	1.71	2.49	2.38	1.68	1.94	2.26	1.90	2.05	1.55	1.59	1.18	1.20	1.48	1.35	1.40	0.92	1.38	2.12	1.42	1.19	0.82	0.65	1.30	1.29	1.15	0.78	1.10	0.94	0.74	0.87	0.56	1.20	0.82	0.86
1932	1.69	1.76	2.97	1.74	1.54	1.45	2.21	1.91	1.19	1.75	1.11	1.33	1.03	1.19	1.39	0.79	1.43	1.58	1.28	1.02	0.87	0.77	0.82	0.95	0.80	1.11	0.84	0.45	0.66	1.09	0.73	1.15	0.49	0.84
1933	1.36	1.86	2.21	1.81	1.59	1.54	1.71	1.73	1.56	1.67	1.11	0.98	1.01	1.11	1.03	1.25	1.04	1.31	1.21	1.19	1.05	1.31	1.18	0.99	0.95	1.09	0.93	0.85	0.65	1.13	0.69	1.15	0.62	0.98
1934	1.74	1.79	1.73	1.50	2.19	1.73	1.33	1.71	1.34	0.98	1.18	1.23	1.12	1.03	1.27	0.96	1.37	1.16	1.16	1.57	0.96	1.33	0.79	0.85	0.78	1.01	0.85	0.47	0.63	1.08	0.77	0.90	0.73	0.91
Average	1.62	1.97	2.32	1.68	1.81	1.74	1.79	1.85	1.41	1.50	1.14	1.18	1.16	1.17	1.27	0.98	1.30	1.54	1.27	1.24	0.92	1.01	1.02	1.02	0.92	1.00	0.93	0.68	0.67	1.04	0.69	1.10	0.66	0.92
1935	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.79
1936	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.73
1937	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.73

NOTE.—Figures for individual Wards for 1935, 1936 and 1937 cannot be compared with those for preceding years owing to many alterations in the boundaries of the Wards in November, 1934. The averages for the Groups of Wards (Central, Middle Ring, Outer Ring) may, however, be considered as roughly comparable.

No.	Ending, 1937.	Total Deaths.	Deaths under 1 yr	Measles.	Whooping Cough.	Diphtheria and Epidemic Typhus.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Respiratory Diseases.	of the Air.				of Ground.		Horizontal Move- ment of Air in Miles.	Hours of Sunsh	Rainfall in In.
										Highest in Shade.	Lowest in Shade.	Mean of Daily Maxima and Minima.	Highest 4 feet deep.					
1	Jan.	304	21	—	—	—	23	4	53	53	34	43.2	46.6	2374	15.7	.37		
2	"	380	18	1	2	2	21	2	60	50	26	40.3	46.3	1690	10.2	.40		
3	"	352	20	3	1	1	22	6	60	53	31	41.2	46.1	2525	11.2	1.66		
4	"	364	26	3	—	—	16	1	70	50	25	34.9	45.7	2613	4.6	.66		
5	Feb.	369	25	1	1	—	16	3	56	52	32	44.3	45.0	2052	17.1	.62		
6	"	330	18	—	2	2	14	1	47	47	31	38.0	45.2	2068	16.3	1.25		
7	"	309	32	2	2	—	14	2	47	55	35	43.9	44.9	2364	12.5	.46		
8	"	261	25	2	2	1	21	1	39	49	34	40.0	44.9	2275	18.2	1.70		
9	March	261	28	1	—	1	14	1	32	45	27	34.8	44.4	1909	5.3	.50		
10	"	303	26	3	—	—	20	2	41	44	27	34.9	43.6	1688	11.8	.95		
11	"	272	25	5	—	3	17	3	50	54	30	41.7	42.9	1903	22.3	1.06		
12	"	261	26	1	—	3	22	1	42	46	28	37.9	43.4	1831	32.8	.24		
13	April	295	33	6	—	3	16	1	45	58	30	41.4	43.2	1246	31.9	.64		
14	"	282	26	4	1	1	12	5	36	59	41	51.6	44.4	1525	15.9	.32		
15	"	255	20	8	—	2	15	1	36	56	37	46.1	45.4	1883	7.4	1.25		
16	"	219	14	—	—	1	18	2	33	58	39	48.4	45.7	1950	26.0	.73		
17	May	205	15	5	—	1	13	1	23	66	38	49.1	46.3	1347	51.6	.23		
18	"	244	15	3	—	1	17	1	27	65	38	51.3	47.1	1526	38.3	.16		
19	"	211	18	—	1	—	21	2	17	59	40	47.5	47.2	1466	10.5	1.00		
20	"	205	16	2	1	4	14	3	17	65	42	53.6	47.9	1257	45.4	.37		
21	"	234	21	3	—	2	14	—	23	77	46	60.0	49.2	1368	52.7	.96		
22	June	208	20	1	1	2	17	1	25	69	46	56.4	50.0	1429	33.4	.01		
23	"	200	19	4	—	3	16	1	12	78	47	59.9	51.0	1262	43.4	.41		
24	"	193	16	6	—	2	18	1	13	66	45	55.9	51.6	1307	34.3	.19		
25	"	169	16	2	—	—	11	3	12	67	46	56.8	51.5	1178	38.4	.10		
26	July	190	12	2	1	—	17	2	15	79	46	60.9	52.1	1655	31.4	.16		
27	"	176	15	2	2	—	16	—	14	67	47	57.9	52.8	1589	20.1	.47		

(Table continued on following page)

TABLE X—METEOROLOGY AND MORTALITY IN EACH WEEK OF THE YEAR, 1937—continued

No.	WEEK.		Total Deaths.	Deaths under 1 year.	DEATHS FROM						TEMPERATURE					Horizontal Movement of Air in Miles.	Hours of Sunshine.	Rainfall in Inches.
	Ending, 1937.				Measles.	Whooping Cough.	Diarrhea and Enteritis under 2.	Pulmonary Tuberculosis.	Other Forms of Tuberculosis.	Respiratory Diseases.	Highest in Shade.	Lowest in Shade.	Mean of Daily Maximum and Minimum.	of Ground.	Highest 4 feet deep.			
28	July 17	174	23	2	—	1	5	10	—	11	79	50	63.2	53.2	53.2	1346	37.3	1.26
29	" 24	193	13	—	—	—	1	14	2	15	72	50	60.4	54.0	54.0	1459	21.4	.96
30	" 31	160	13	—	—	—	1	6	3	13	73	51	59.0	53.9	53.9	1066	26.1	trace
31	Aug. 7	169	15	—	—	—	4	10	1	10	81	53	67.1	54.4	54.4	745	60.5	.02
32	" 14	186	16	—	—	—	2	11	4	11	79	53	64.9	56.0	56.0	912	36.0	.70
33	" 21	181	16	1	—	1	2	11	—	13	68	49	58.6	55.2	55.2	1818	39.4	.17
34	" 28	143	10	—	—	—	1	9	2	9	75	50	61.9	55.6	55.6	766	42.6	—
35	Sept. 4	174	16	—	—	1	6	12	—	8	71	49	61.1	55.9	55.9	1202	38.4	.25
36	" 11	175	18	—	—	—	4	8	1	13	76	42	57.1	56.0	56.0	1644	40.8	.20
37	" 18	192	18	—	—	—	4	13	1	10	61	42	52.6	55.6	55.6	1068	20.7	1.51
38	" 25	176	23	—	—	—	6	13	—	19	66	45	54.4	54.6	54.6	1069	23.8	.10
39	Oct. 2	199	13	—	—	—	—	14	1	16	74	46	58.6	54.2	54.2	1007	38.8	—
40	" 9	188	11	—	—	1	—	11	1	16	61	43	53.3	54.2	54.2	1550	10.8	.03
41	" 16	182	16	—	—	—	1	14	1	15	59	40	49.4	53.9	53.9	1137	19.3	—
42	" 23	199	22	—	—	1	2	13	1	16	57	41	44.8	53.2	53.2	862	10.4	.82
43	" 30	189	12	—	—	1	—	11	—	21	57	43	49.3	52.3	52.3	1726	19.7	1.69
44	Nov. 6	232	16	—	—	—	—	16	—	21	54	41	48.0	51.8	51.8	965	7.9	.23
45	" 13	213	18	—	—	—	1	14	3	20	51	33	42.5	51.6	51.6	1573	21.8	.34
46	" 20	233	22	—	—	1	3	17	2	15	47	28	37.3	50.3	50.3	1542	13.4	.42
47	" 27	270	14	—	—	2	—	14	1	34	46	30	40.4	48.6	48.6	1028	14.1	.56
48	Dec. 4	221	23	—	—	1	2	10	1	26	51	31	41.0	47.8	47.8	1518	3.8	1.63
49	" 11	251	26	—	—	—	2	16	1	38	40	26	33.6	47.6	47.6	1404	5.1	.30
50	" 18	279	26	—	—	—	—	14	1	45	43	29	35.1	45.8	45.8	1902	14.8	.52
51	" 25	255	22	1	—	1	1	10	2	43	52	26	39.7	44.8	44.8	1368	5.5	.16
52	1938, Jan. 1	270	26	—	—	1	3	12	1	35	48	30	37.9	45.4	45.4	1317	.3	.08